

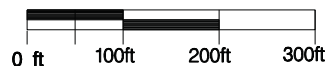
LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



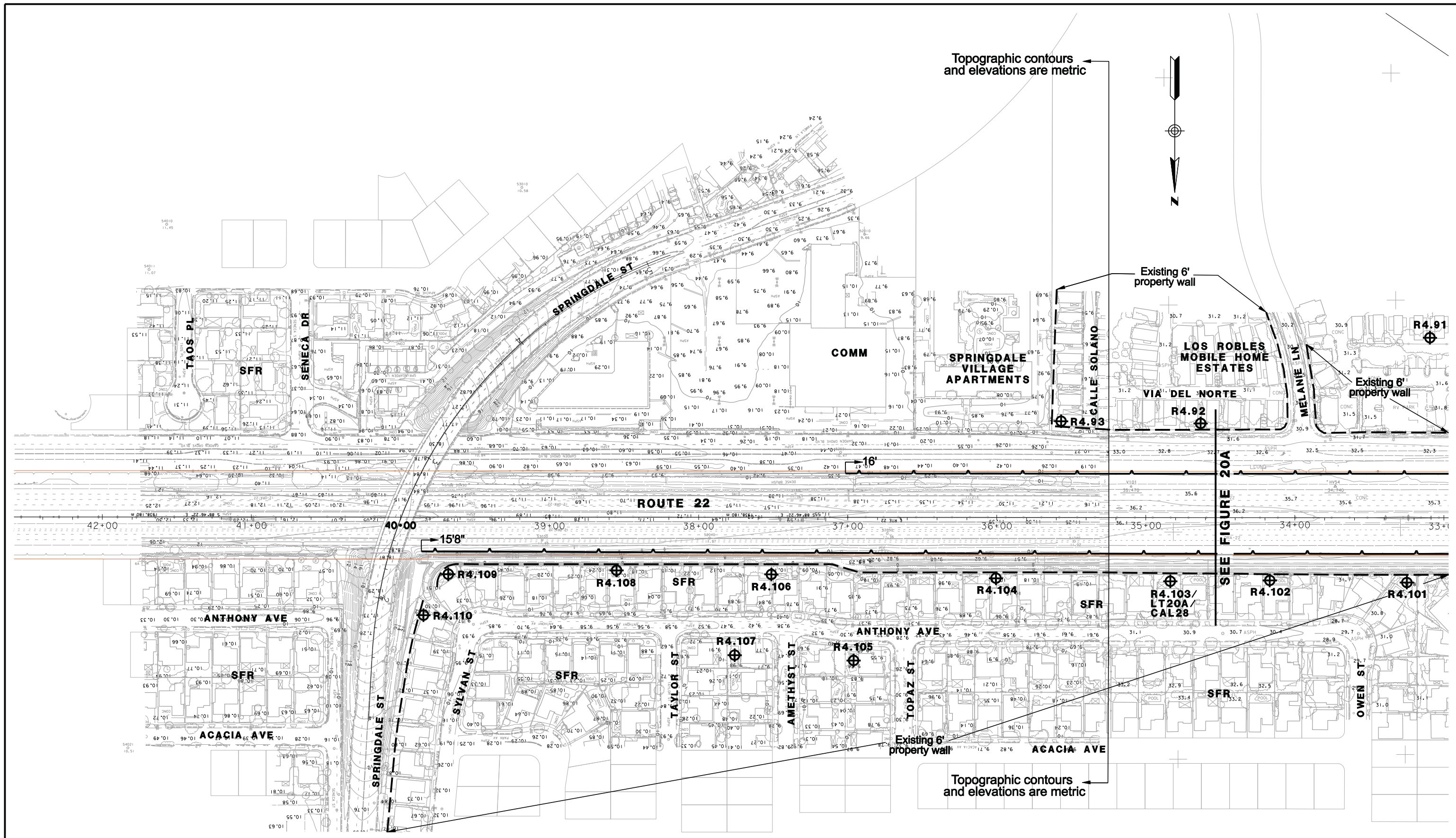
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(626) 440-6100

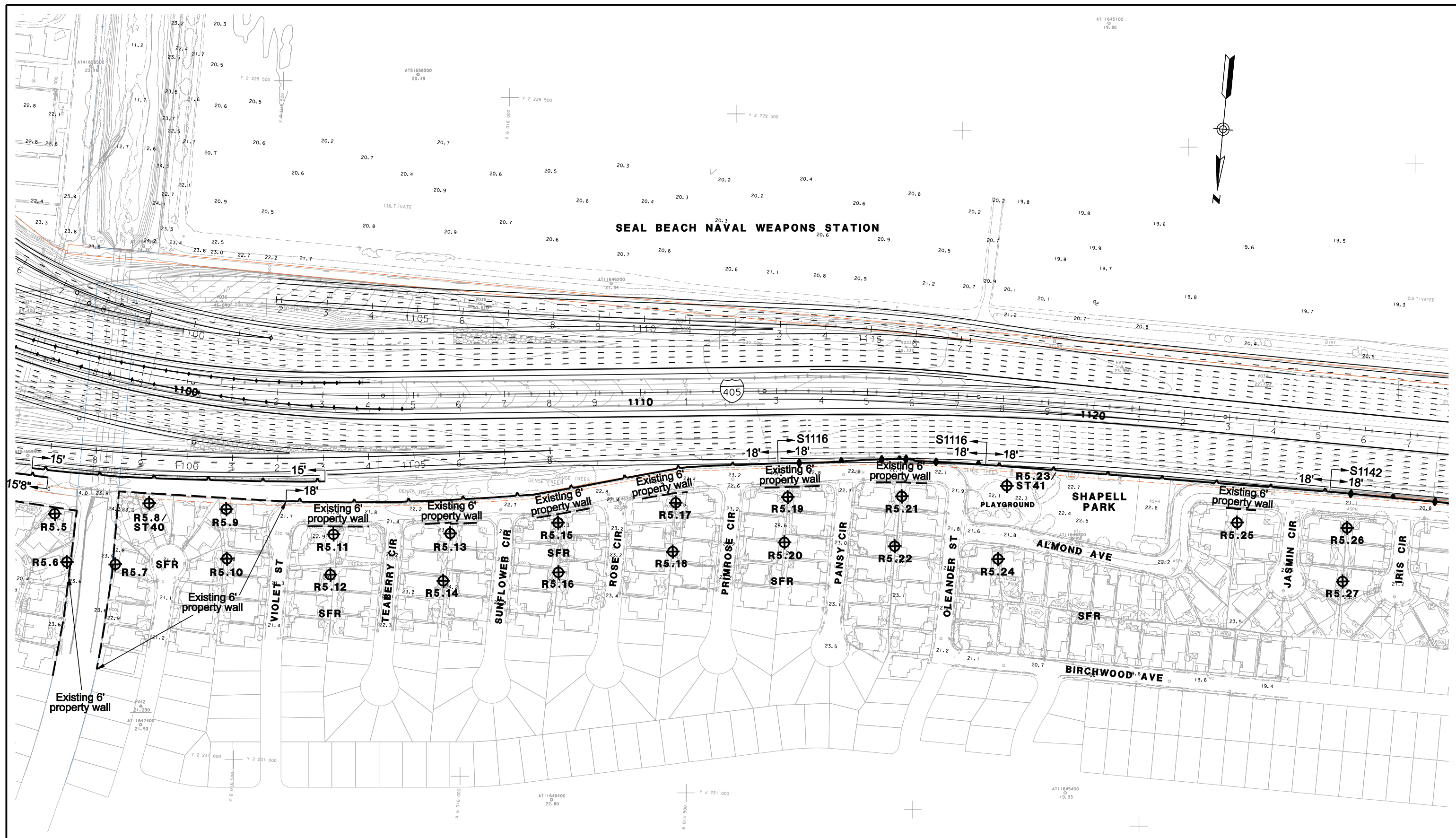
**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT2**

FEBRUARY 25, 2011

FIGURE 20A



LEGEND ⊕RXX - RECEIVER SITE ⊕LT - LONGTERM MEASUREMENT ⊕ST - SHORTTERM MEASUREMENT ⊕CAL - CALIBRATION SITE		--- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL		SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE		1in : 200ft 0 ft 100ft 200ft 300ft		PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100		I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT2	
								FEBRUARY 25, 2011		FIGURE 20B	



LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



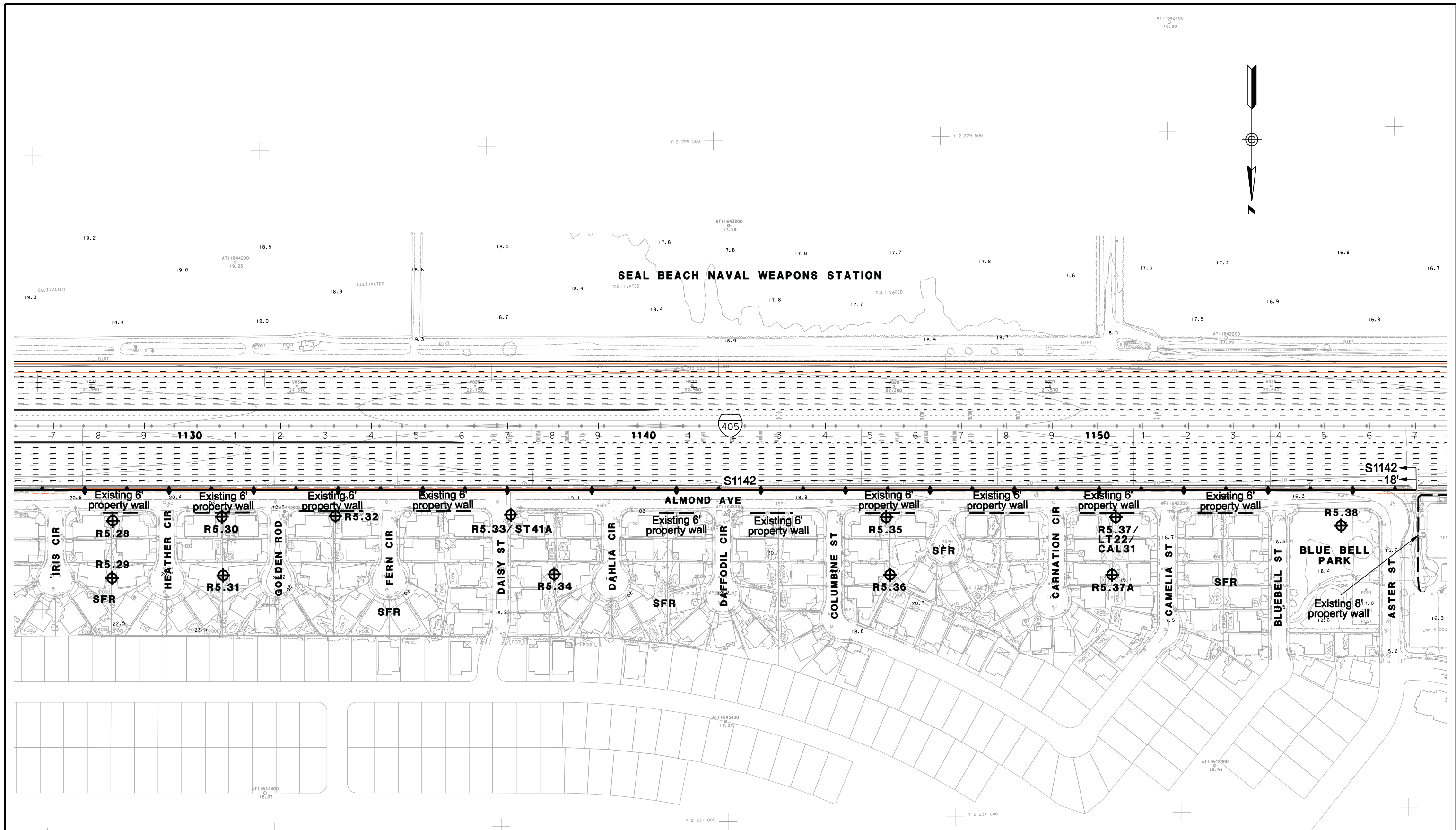
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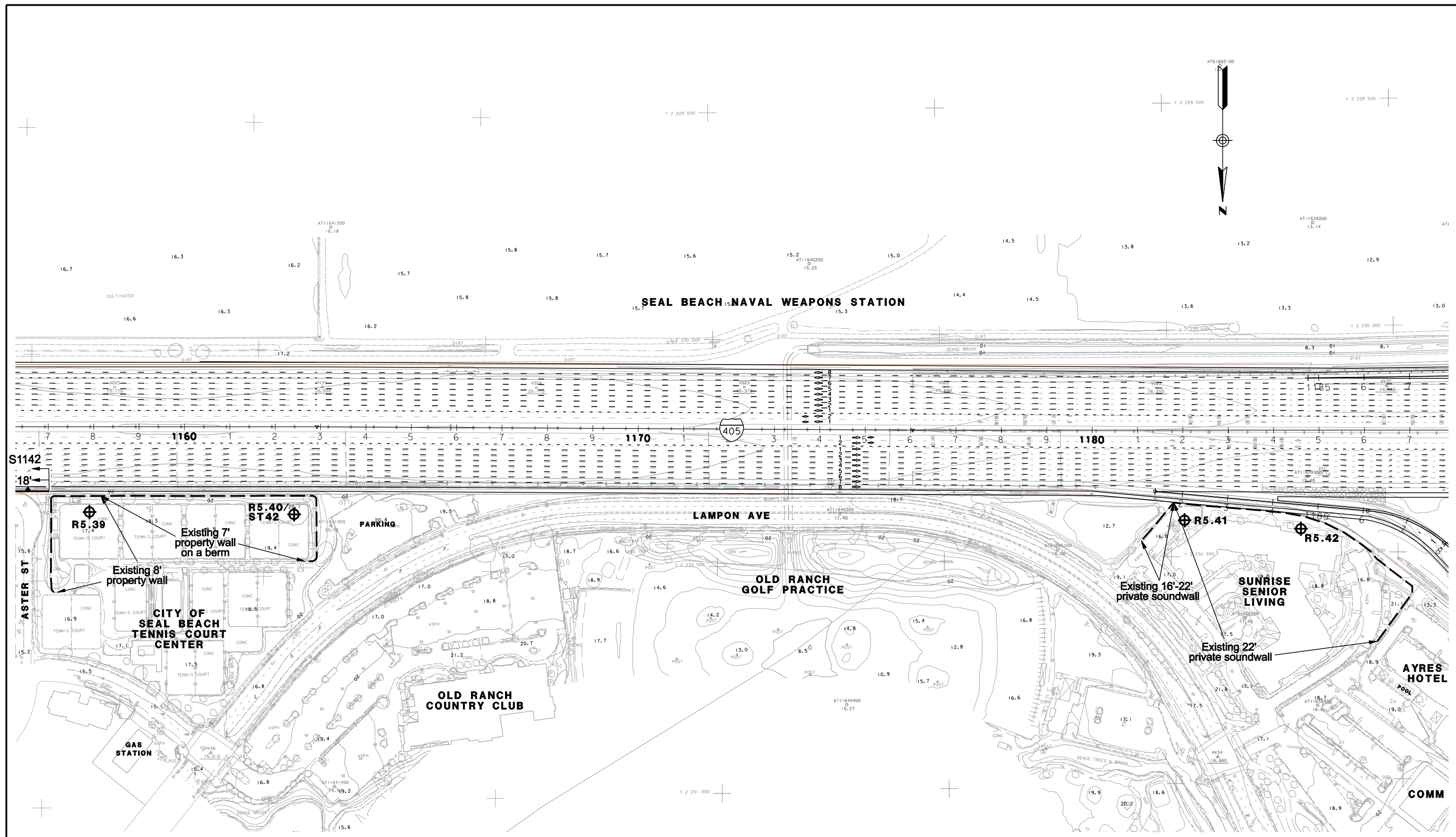
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT2**

FEBRUARY 25, 2011

FIGURE 21

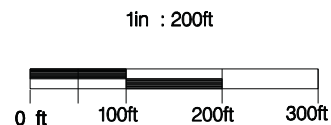




- LEGEND**
- ⊕RXX - RECEIVER SITE
 - ⊕LT - LONGTERM MEASUREMENT
 - ⊕ST - SHORTTERM MEASUREMENT
 - ⊕CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

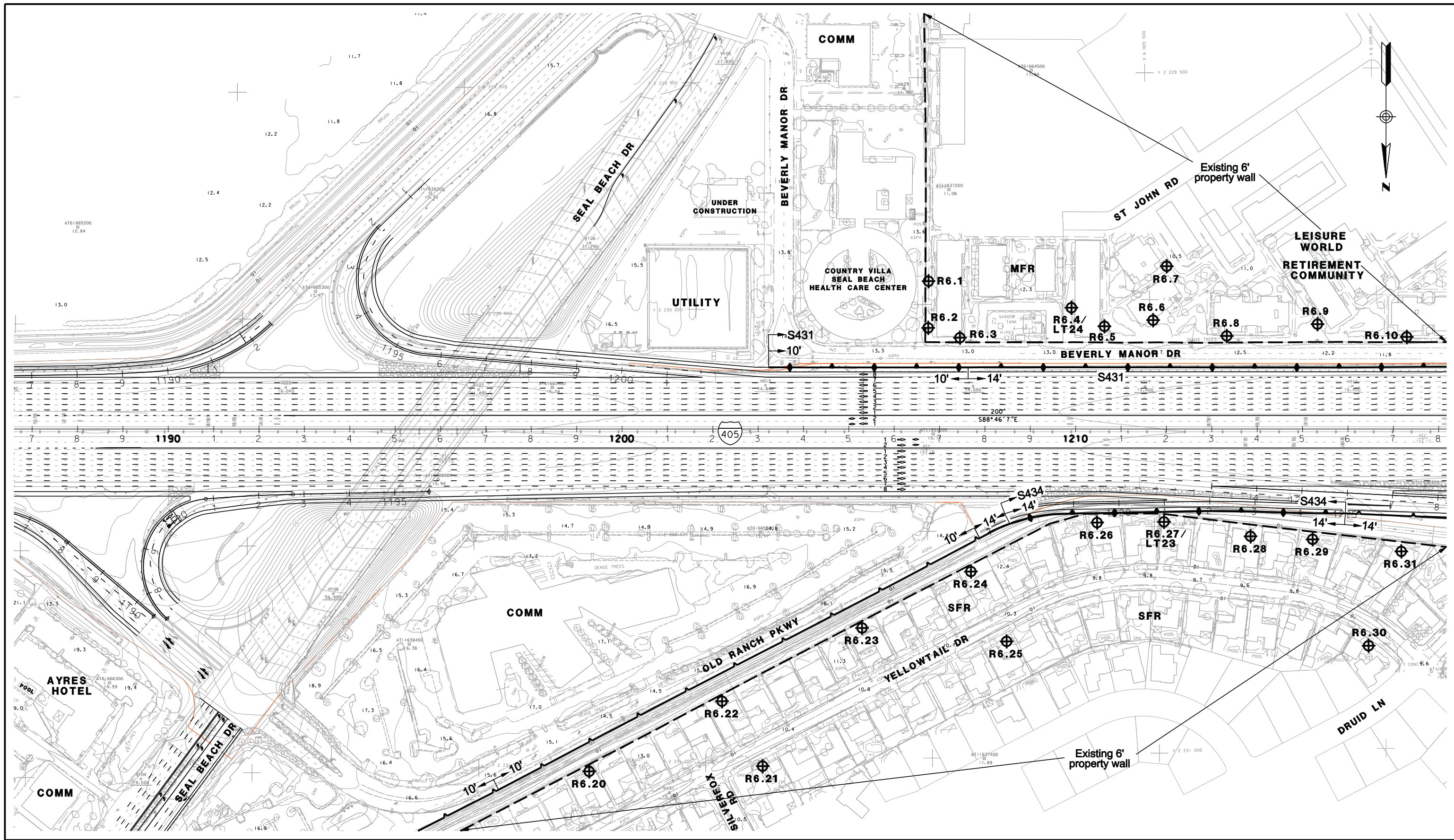


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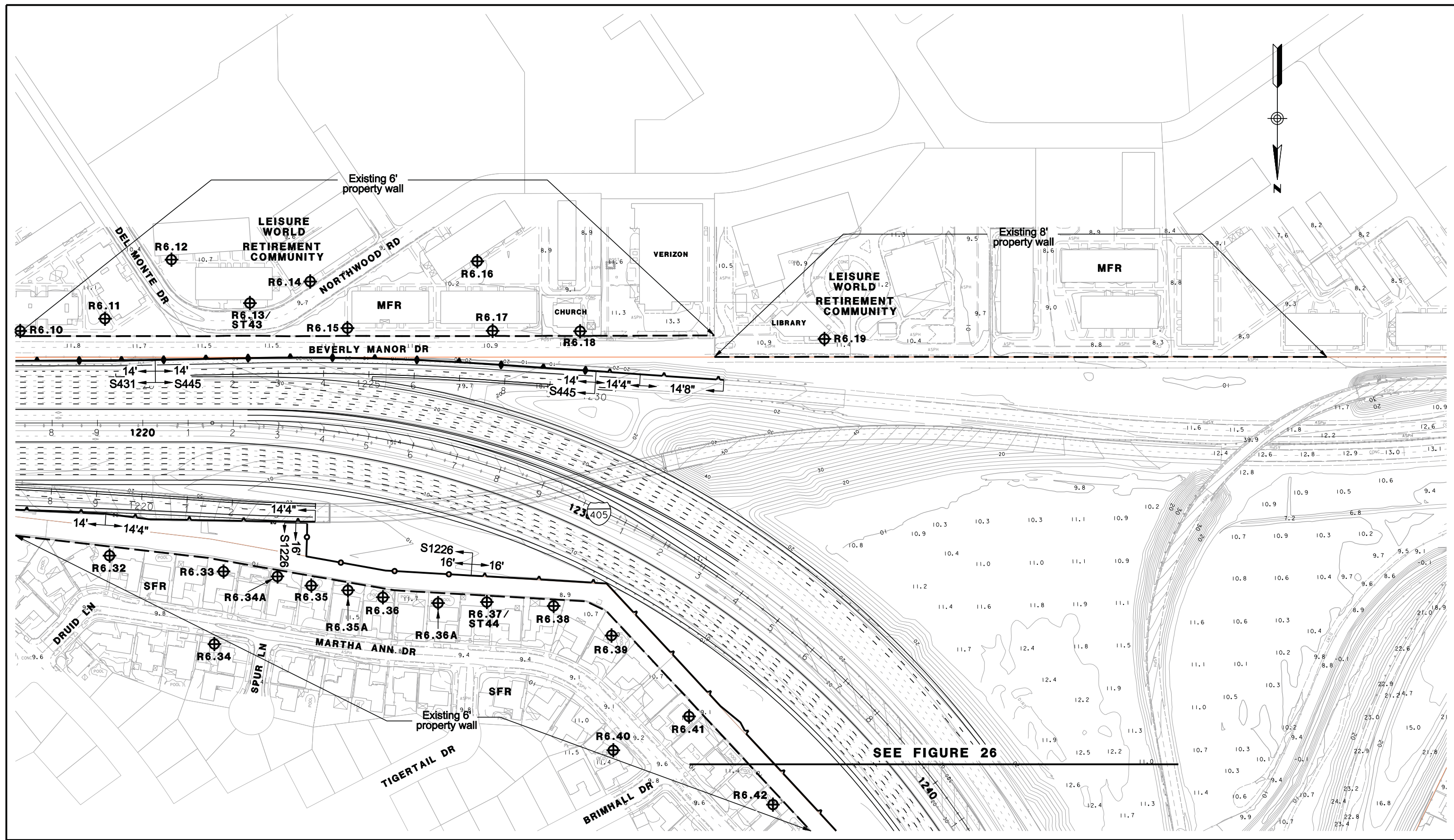
**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT2**

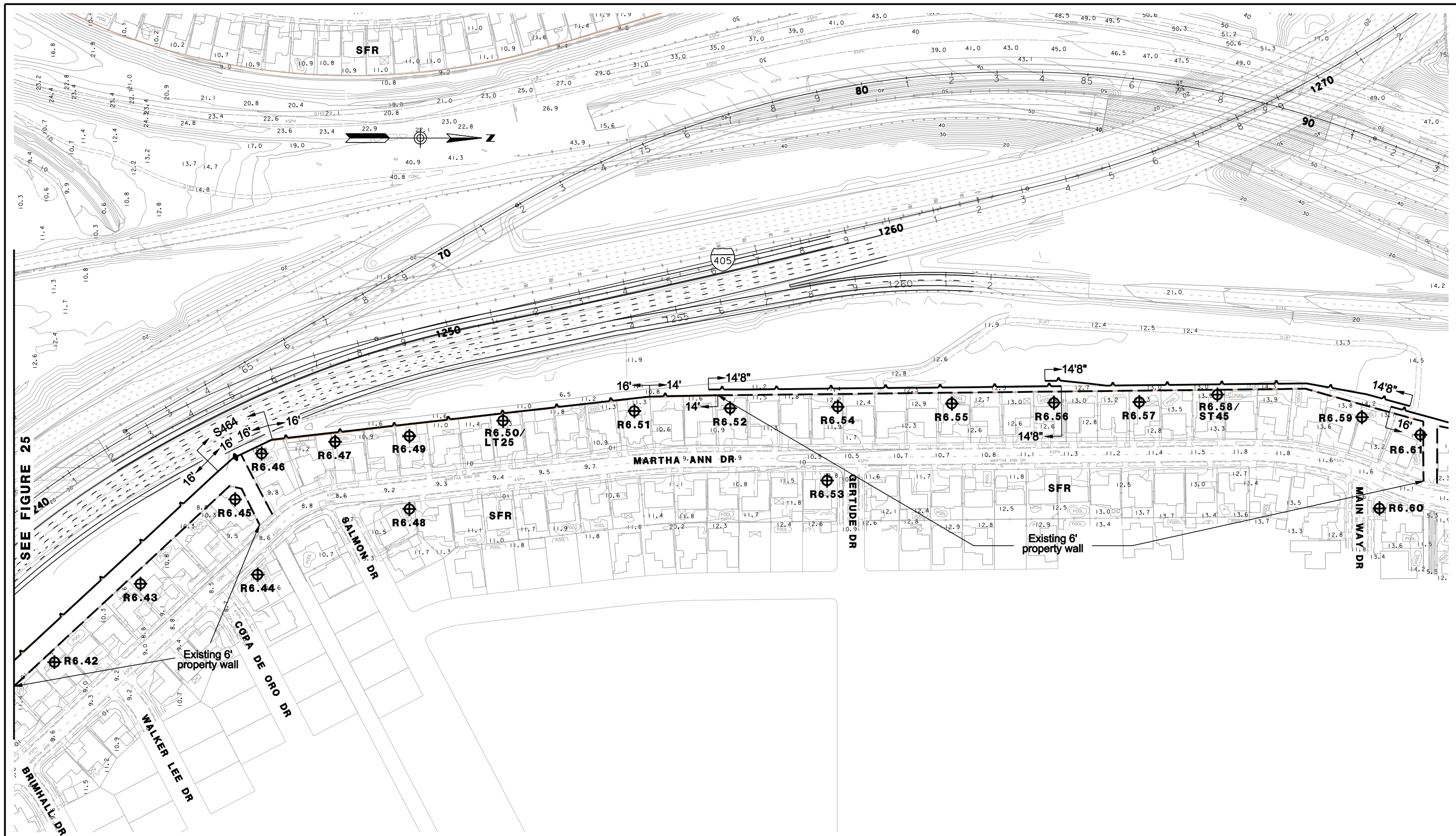
FEBRUARY 25, 2011

FIGURE 23



LEGEND ⊕RXX - RECEIVER SITE ⊕LT - LONGTERM MEASUREMENT ⊕ST - SHORTTERM MEASUREMENT ⊕CAL - CALIBRATION SITE	--- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL	SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE	1in : 200ft 0 ft 100ft 200ft 300ft	PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100	I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT2 FEBRUARY 25, 2011 FIGURE 24
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N5: Alternative 3 Reasonableness Analysis Summary and Recommended Soundwall Locations

TABLE 3 - Noise Abatement Information Alternative 3 (1 of 3)

Noise Barrier No.	Height (feet)	Acoustically Feasible?	Number of Benefited Residences	Total Reasonable Allowance	Estimated Construction Cost	Cost Less than Allowance	Preliminary Noise Abatement Decision
S502	14	No	N/A	N/A	N/A	N/A	Replace in-kind
S583	14	No	N/A	N/A	N/A	N/A	Replace in-kind
S614A	12	Yes	1	\$39,000	\$66,000	No	Not Reasonable
S614B	8	Yes	1	\$37,000	\$61,000	No	Not Reasonable
S629	14	No	N/A	N/A	N/A	N/A	Replace in-kind
S639	16	No	N/A	N/A	N/A	N/A	Replace in-kind
S649	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S699	16	No	N/A	N/A	N/A	N/A	Replace in-kind
S705	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S710	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S708	12	Yes	21	\$945,000	\$584,000	Yes	Reasonable
S718	16						Reasonable
S733	12	Yes	1	\$43,000	\$107,000	No	Not Reasonable
S745A	14-16	Yes	2	\$98,000	\$150,000	No	Not Reasonable
S745B	16	Yes	2	\$98,000	\$119,000	No	Replace in-kind*
S746	12	Yes	2	\$102,000	\$59,000	Yes	Reasonable
S765	14-16	No	N/A	N/A	\$74,000	N/A	Replace in-kind*
S766	14	No	N/A	N/A	\$50,000	N/A	Replace in-kind*
S776	12	Yes	1	\$41,000	\$82,000	No	Reasonable Severe Impact
S795	14	Yes	53	\$2,385,000	\$395,000	Yes	Reasonable
S807	14	Yes	7	\$259,000	\$239,000	Yes	Reasonable
S811	10-16						Replace in-kind (higher)

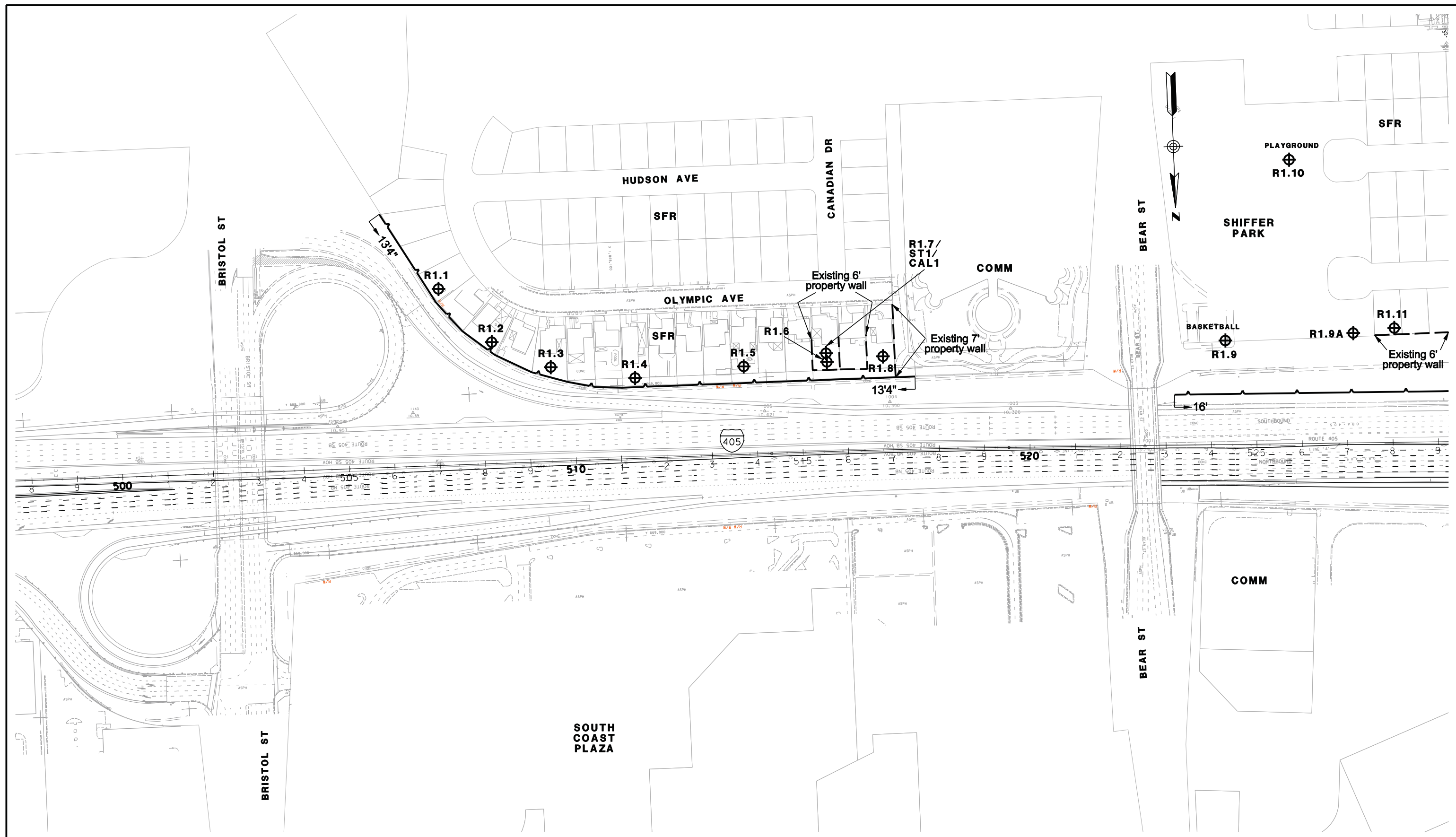
TABLE 3 - Noise Abatement Information Alternative 3 (2 of 3)

Noise Barrier No.	Height (feet)	Acoustically Feasible?	Number of Benefited Residences	Total Reasonable Allowance	Estimated Construction Cost	Cost Less than Allowance	Preliminary Noise Abatement Decision
S827	10-12	No	N/A	N/A	N/A	N/A	Replace in-kind
S834	16	Yes	11	\$495,000	\$523,000	No	Not Reasonable
S841	16	Yes	7	\$385,000	\$205,000	Yes	Reasonable
S857	14	Yes	7	\$343,000	\$82,000	Yes	Reasonable
S868	16	Yes	1	\$35,000	\$121,000	No	Not Reasonable
S896	10	No	N/A	N/A	\$30,000	N/A	Replace in-kind*
S902	8	No	N/A	N/A	N/A	N/A	Replace in-kind
S910	10-12	Yes	7	\$315,000	\$292,000	Yes	Replace in-kind (higher)
S916	14						Reasonable
S907	10-12	Yes	6	\$270,000	\$232,000	Yes	Reasonable
S141	8	No	N/A	N/A	N/A	N/A	Replace in-kind
S935	16	Yes	4	\$180,000	\$147,000	Yes	Reasonable
S182	10	No	N/A	N/A	N/A	N/A	Replace in-kind
S972	14-16	Yes	11	\$407,000	\$392,000	Yes	Replace in-kind (higher)
S978	14-16						Reasonable
S995	14-16	Yes	2	\$78,000	\$81,000	No	Not Reasonable
S998	16	Yes	2	\$94,000	\$53,000	Yes	Reasonable
S1006	16	Yes	7	\$385,000	\$123,000	Yes	Reasonable
S1005	12	Yes	11	\$583,000	\$320,000	Yes	Replace in-kind (higher)
S1009	16						Reasonable
S786	14	Yes	3	\$135,000	\$124,000	Yes	Reasonable
S790	14						Replace in-kind (higher)

TABLE 3 - Noise Abatement Information Alternative 3 (3 of 3)

Noise Barrier No.	Height (feet)	Acoustically Feasible?	Number of Benefited Residences	Total Reasonable Allowance	Estimated Construction Cost	Cost Less than Allowance	Preliminary Noise Abatement Decision
S1016	16	Yes	8	\$392,000	\$349,000	Yes	Reasonable
S1020	16						Replace in-kind (higher)
S1022	16						Replace in-kind (higher)
S1024	16						Reasonable
S1026	14	Yes	1	\$47,000	\$73,000	No	Replace in-kind*
S1028	16						Not Reasonable
S1083	14-16	Yes	5	\$255,000	\$194,000	Yes	Reasonable
S1116	18	No	N/A	N/A	N/A	N/A	Replace in-kind
S1132	18	No	N/A	N/A	N/A	N/A	Replace in-kind
S1162	12	Yes	6	\$270,000	\$225,000	Yes	Reasonable
S431	10-14	No	N/A	N/A	N/A	N/A	Replace in-kind
S434	14	No	N/A	N/A	N/A	N/A	Replace in-kind
S445	14	No	N/A	N/A	N/A	N/A	Replace in-kind
S1226	16	Yes	3	\$141,000	\$163,000	No	Replace in kind *
S464	16	No	N/A	N/A	N/A	N/A	Replace in-kind
S1037A	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S1037B	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S1044A	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S1044B	12	No	N/A	N/A	N/A	N/A	Replace in-kind

*Replacement or gap closure soundwall for existing berm or natural abatement.

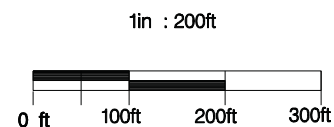


LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

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- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

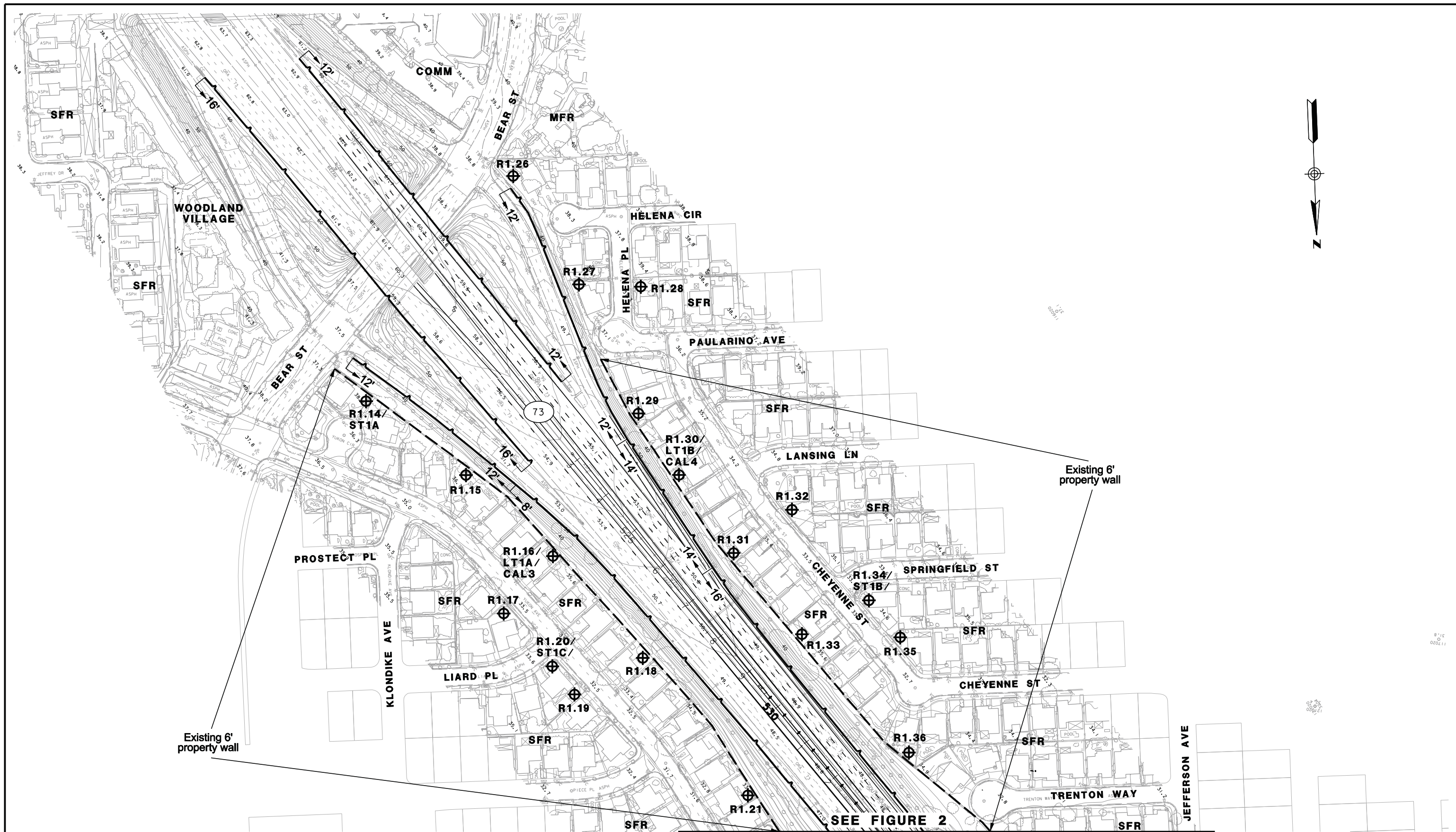


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 NADR RECOMMENDED BARRIER
 HEIGHTS & LOCATIONS ALT3**

FEBRUARY 25, 2011

FIGURE 1



LEGEND

⊕RXX - RECEIVER SITE

⊕LT - LONGTERM MEASUREMENT

⊕ST - SHORTTERM MEASUREMENT

⊕CAL - CALIBRATION SITE

--- EXISTING WALL

--- SOUNDWALL

--- EXISTING SOUNDWALL

--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE

MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

b - BENEFITED RESIDENCE

1in : 200ft

0 ft 100ft 200ft 300ft

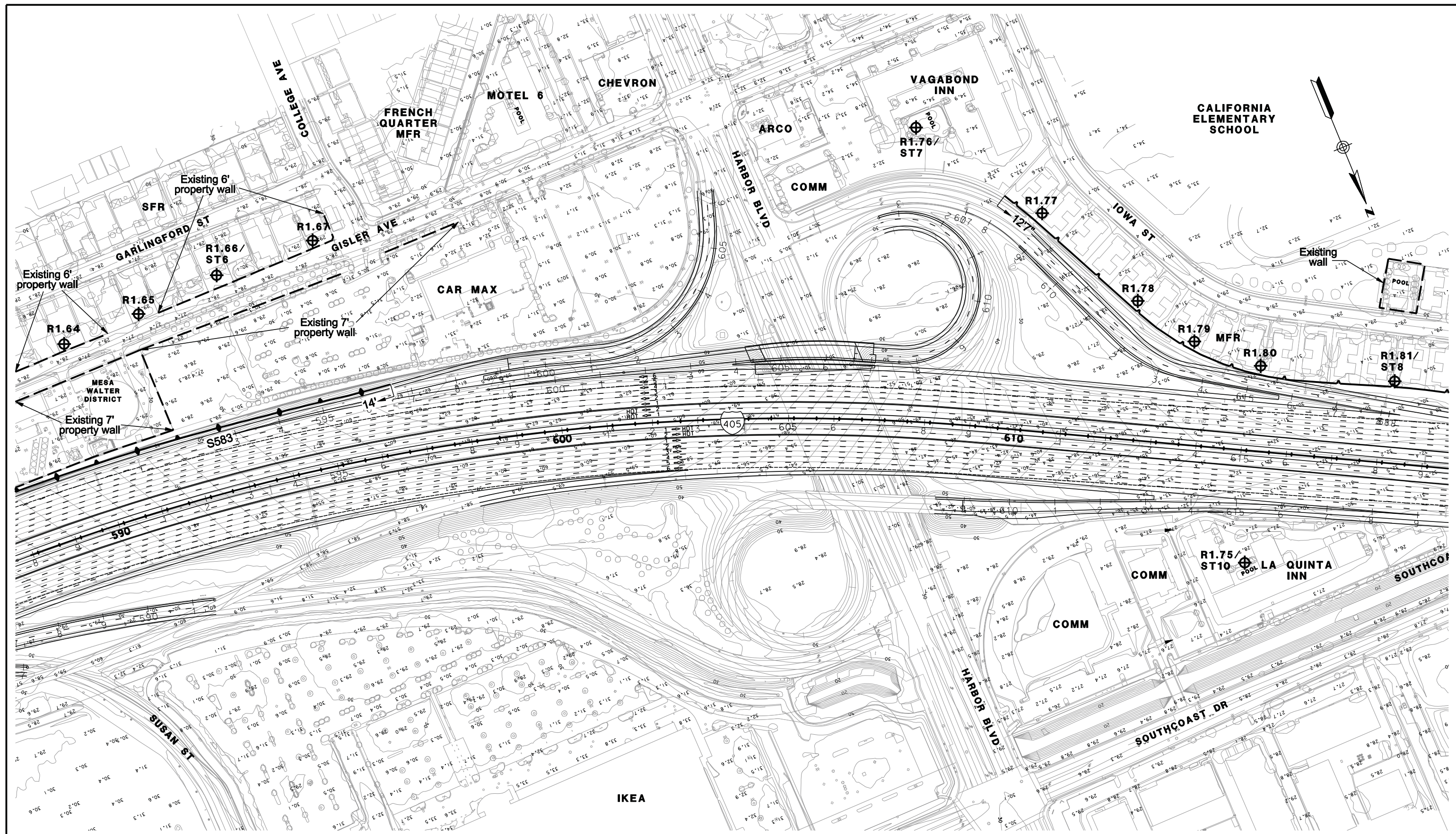
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

FEBRUARY 25, 2011

FIGURE 2A



LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



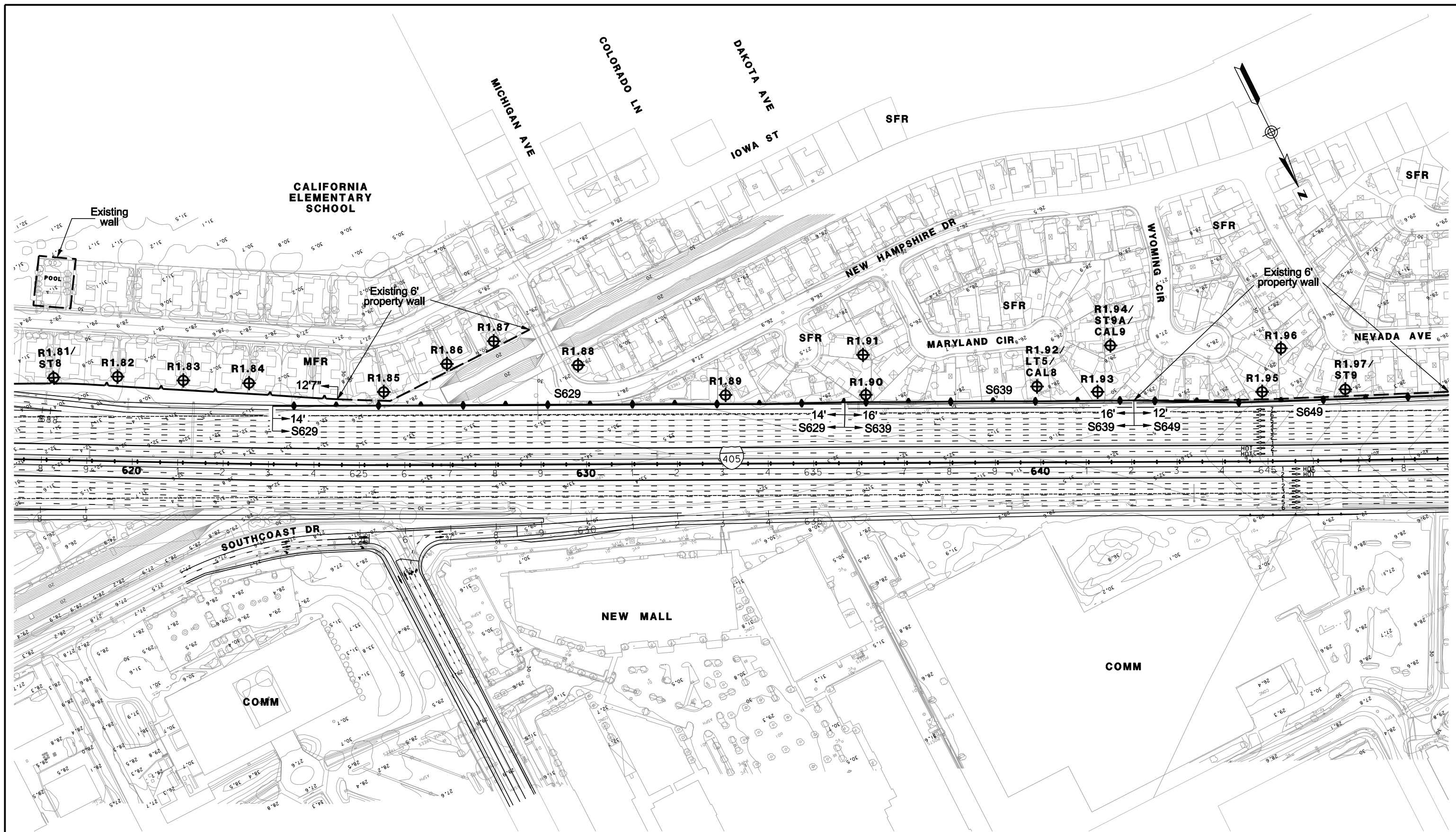
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

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FIGURE 4



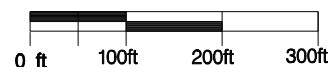
LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



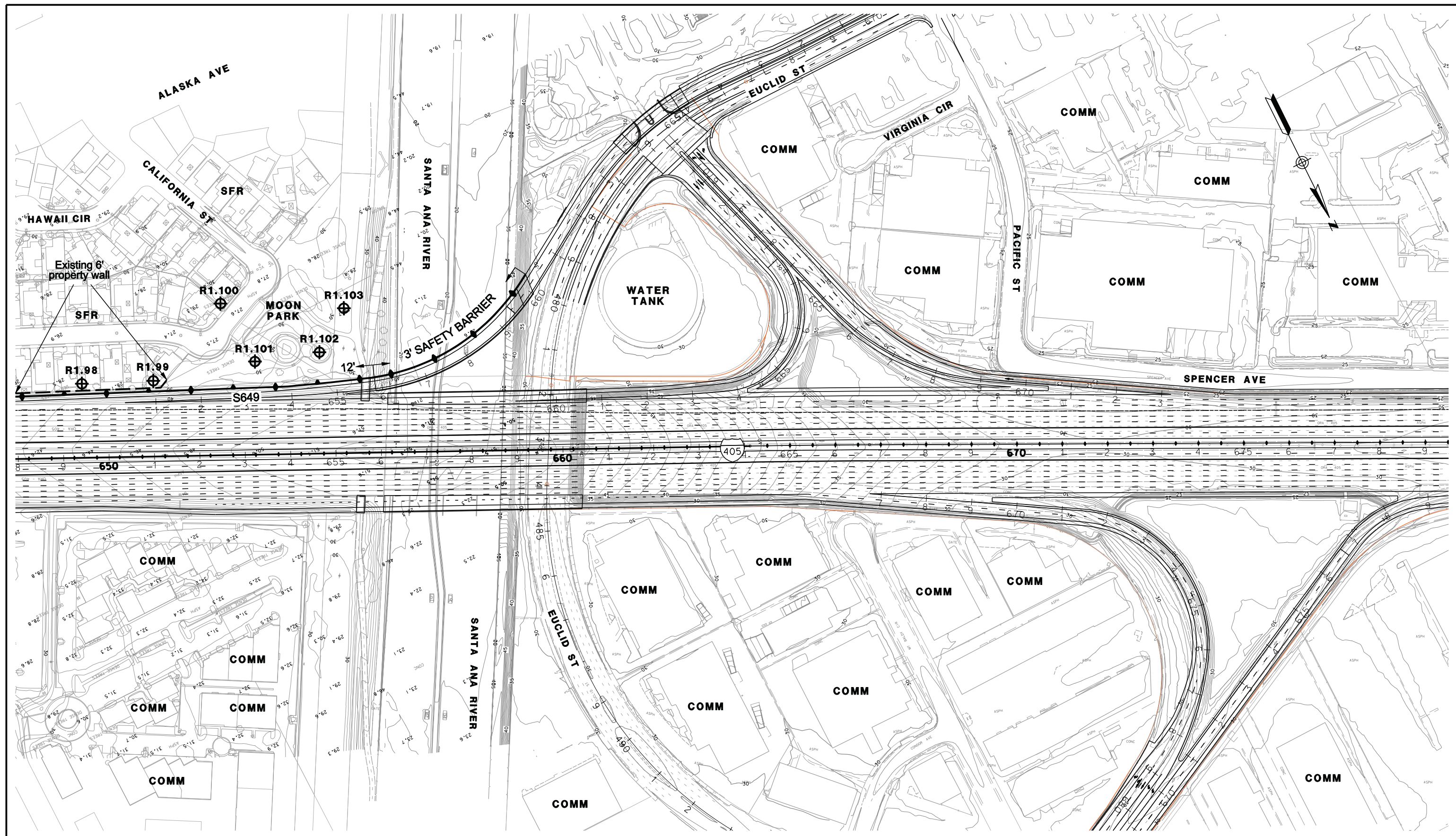
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

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FIGURE 5



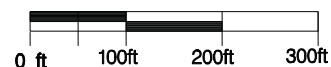
LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



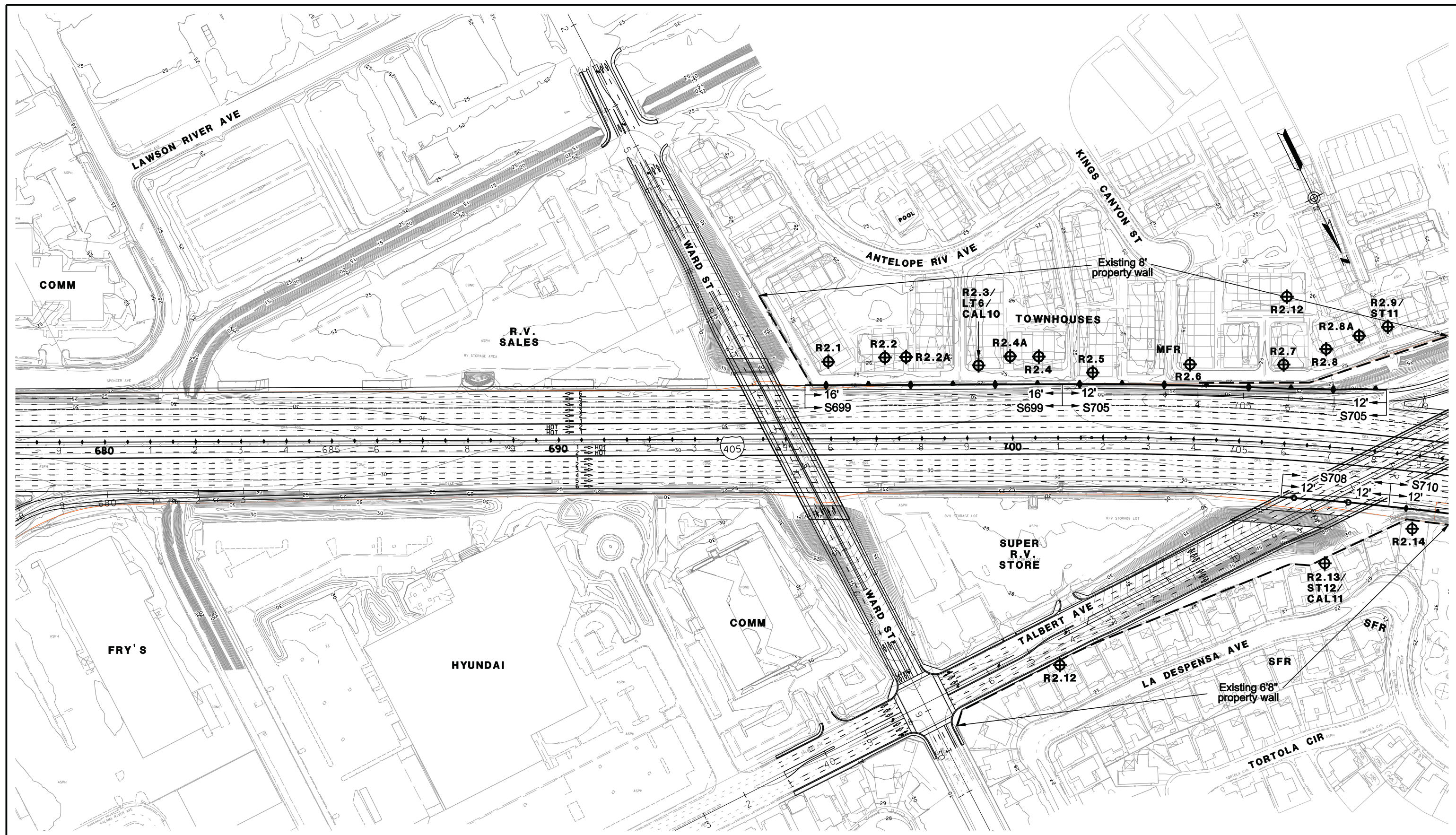
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

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FIGURE 6



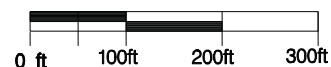
LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



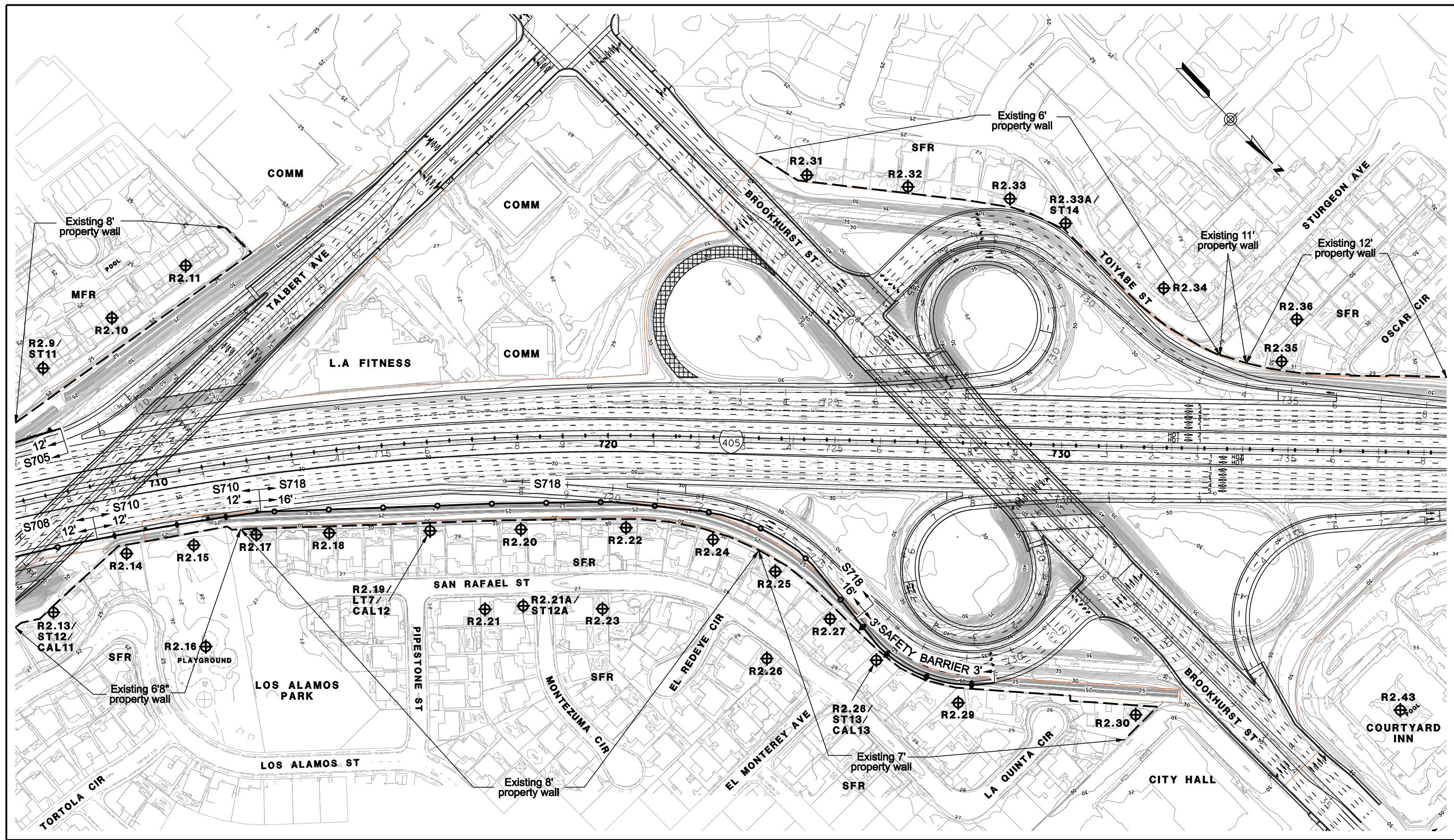
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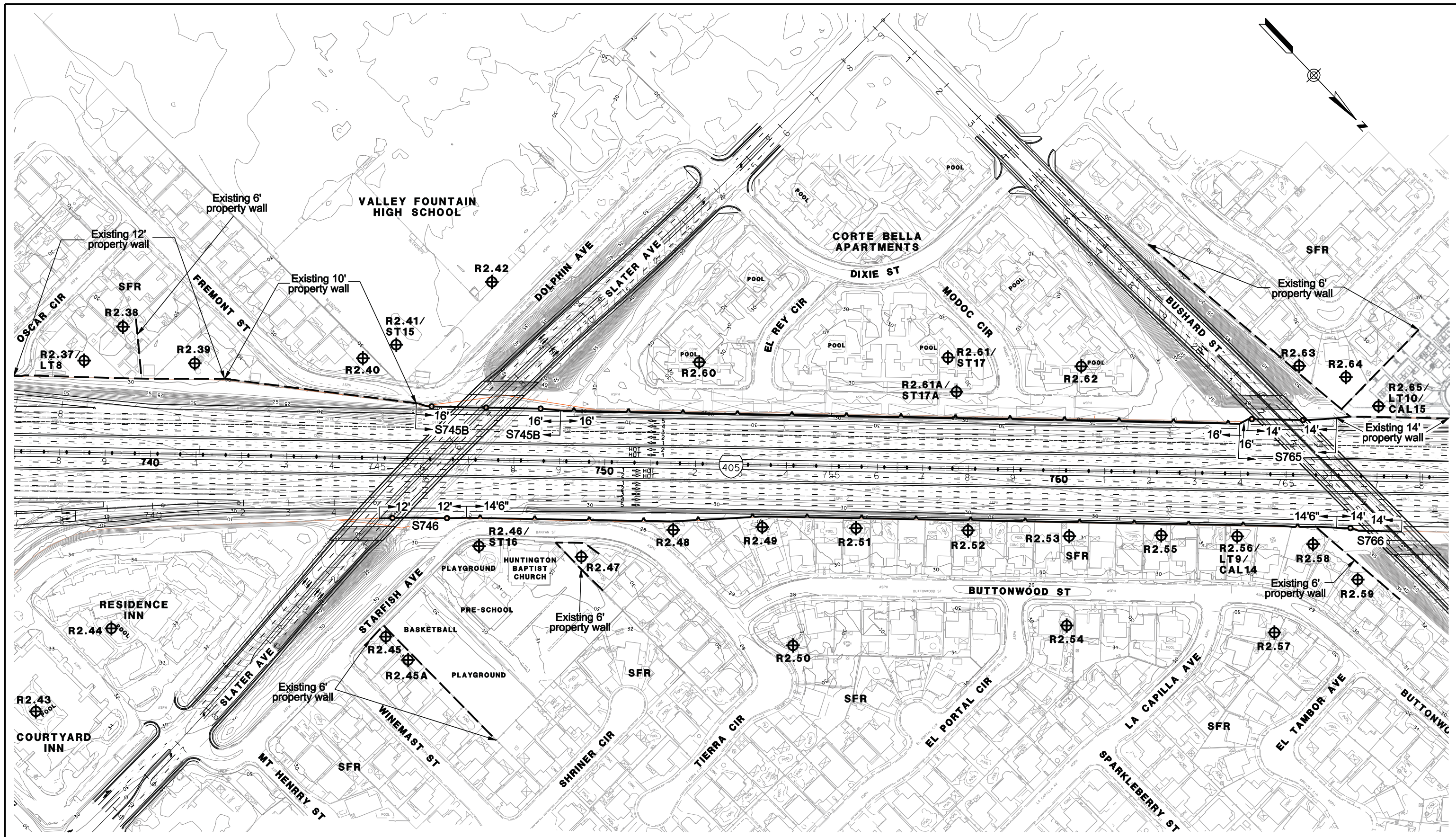
**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

FEBRUARY 25, 2011

FIGURE 7



LEGEND ⊕ RXX - RECEIVER SITE ⊕ LT - LONGTERM MEASUREMENT ⊕ ST - SHORTTERM MEASUREMENT ⊕ CAL - CALIBRATION SITE		--- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL		SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE		1in : 200ft 0 ft 100ft 200ft 300ft		PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100		I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT3 FEBRUARY 25, 2011		FIGURE 8	
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LEGEND

⊕RXX - RECEIVER SITE

⊕LT - LONGTERM MEASUREMENT

⊕ST - SHORTTERM MEASUREMENT

⊕CAL - CALIBRATION SITE

--- EXISTING WALL

--- SOUNDWALL

--- EXISTING SOUNDWALL

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MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

1in : 200ft

0 ft 100ft 200ft 300ft

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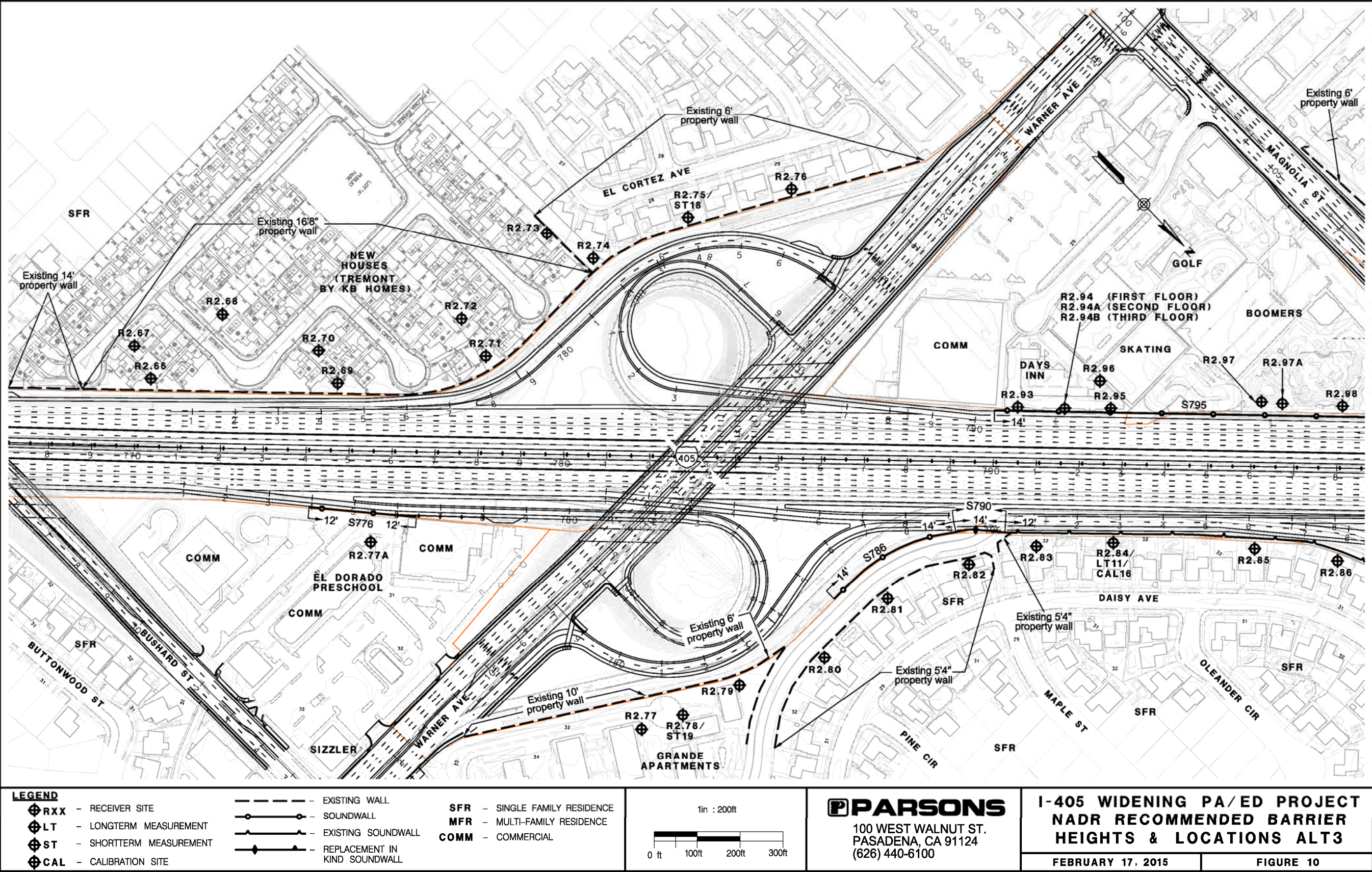
I-405 WIDENING PA/ED PROJECT

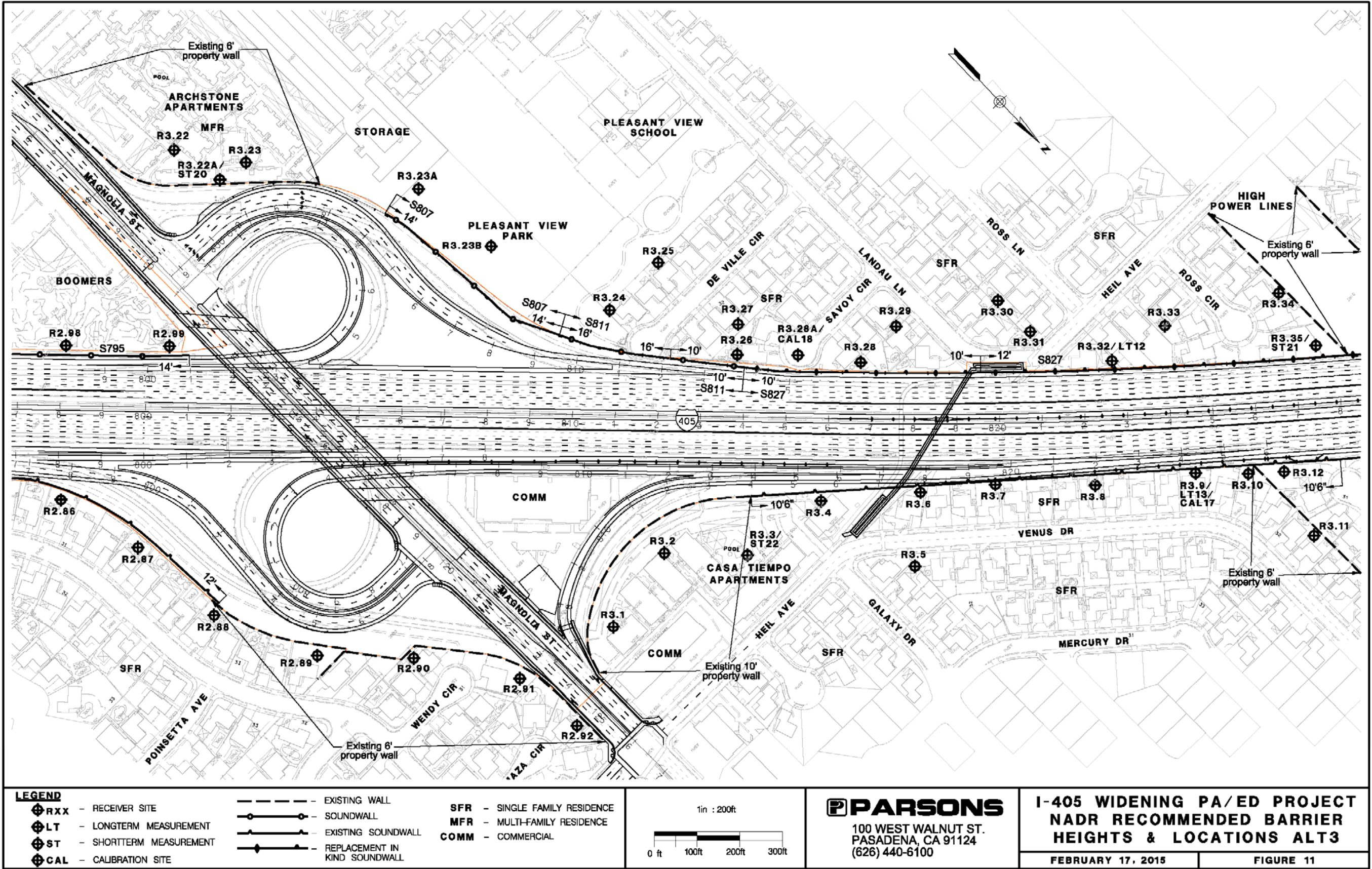
NADR RECOMMENDED BARRIER

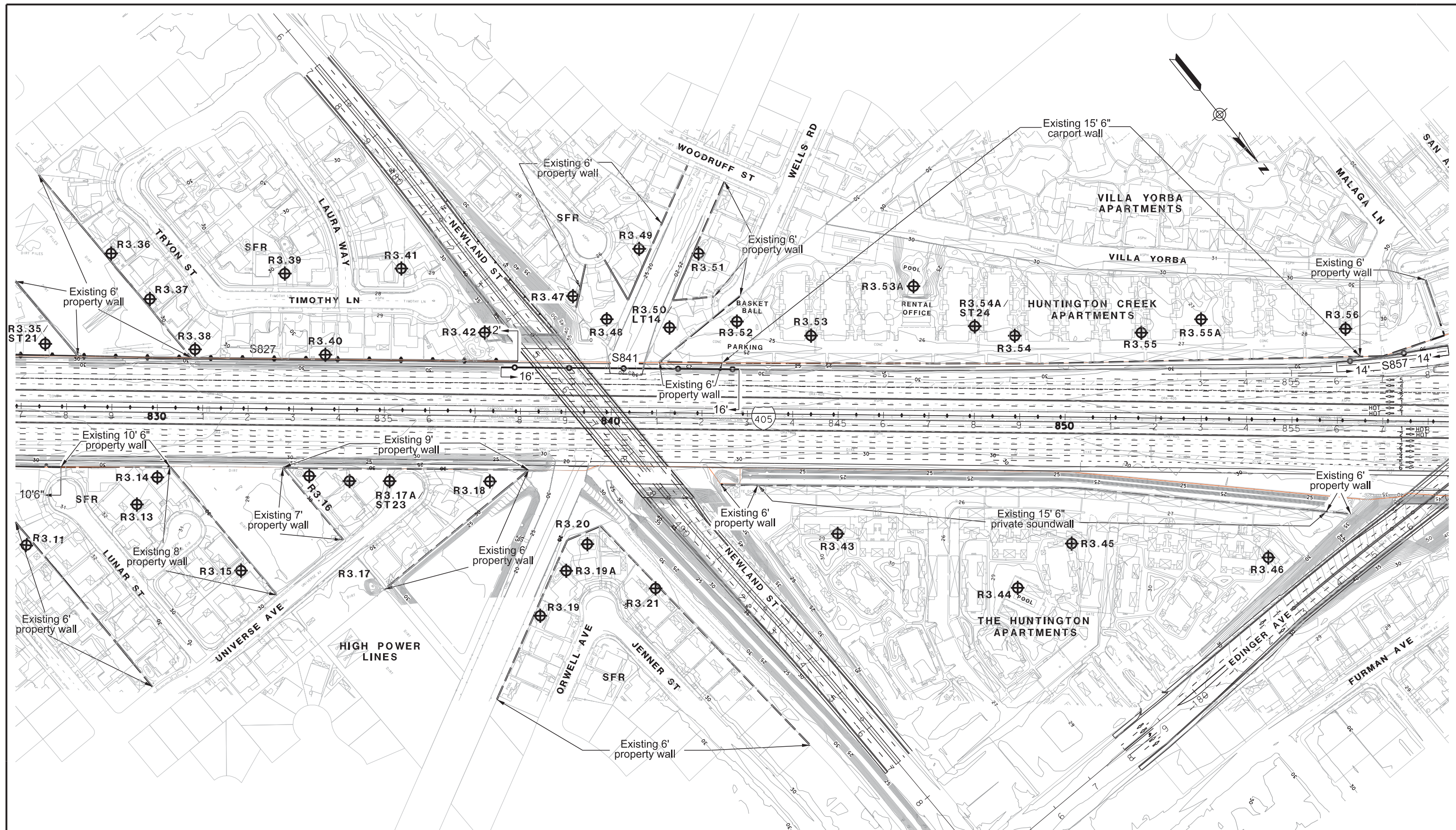
HEIGHTS & LOCATIONS ALT3

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FIGURE 9







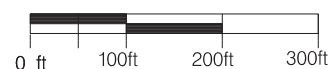
LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- ◆--- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



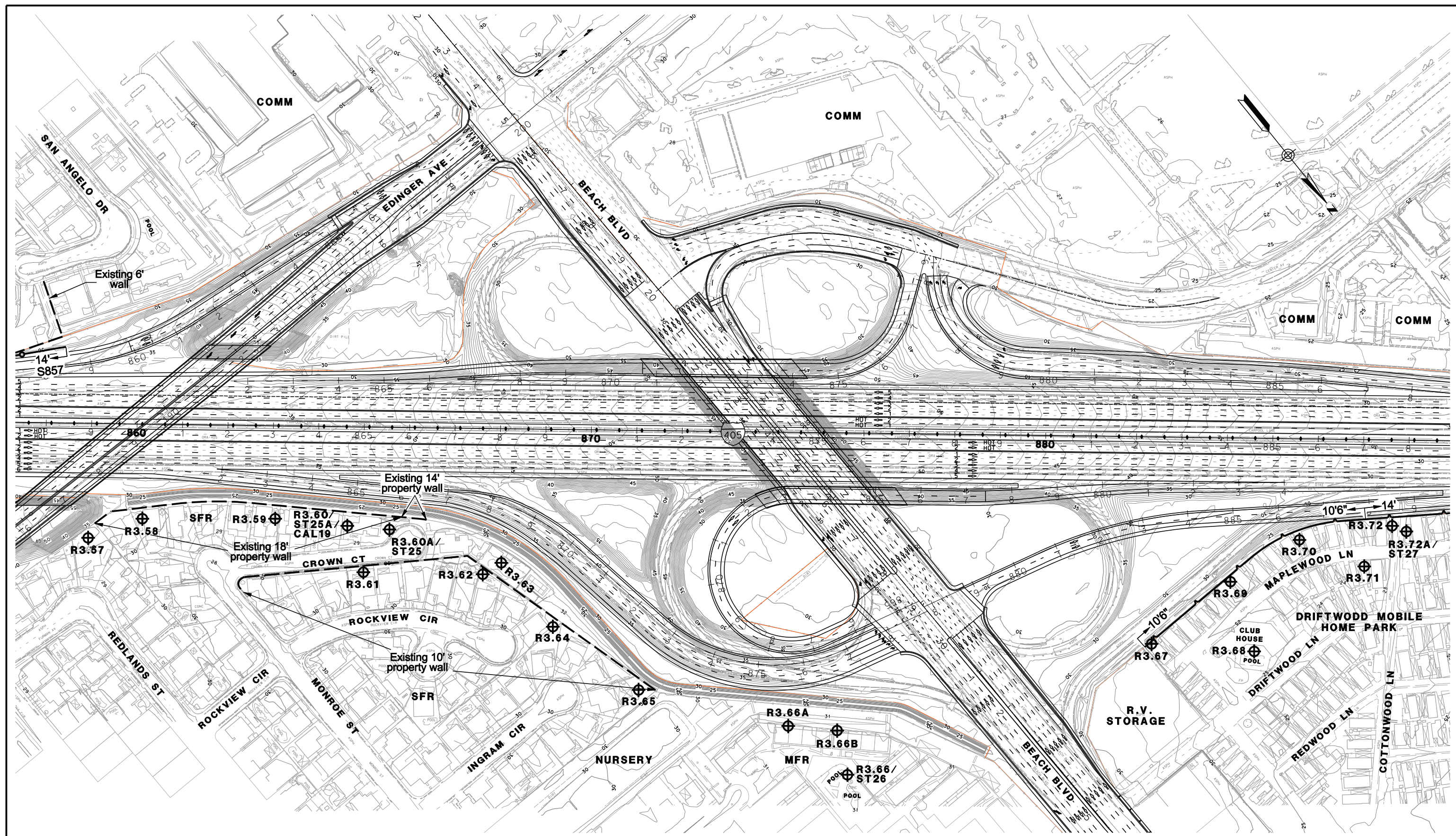
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

AUGUST 16, 2011

FIGURE 12



LEGEND

⊕RXX - RECEIVER SITE
 ⊕LT - LONGTERM MEASUREMENT
 ⊕ST - SHORTTERM MEASUREMENT
 ⊕CAL - CALIBRATION SITE

--- EXISTING WALL
 --- SOUNDWALL
 --- EXISTING SOUNDWALL
 --- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
 MFR - MULTI-FAMILY RESIDENCE
 COMM - COMMERCIAL
 b - BENEFITED RESIDENCE

1in : 200ft

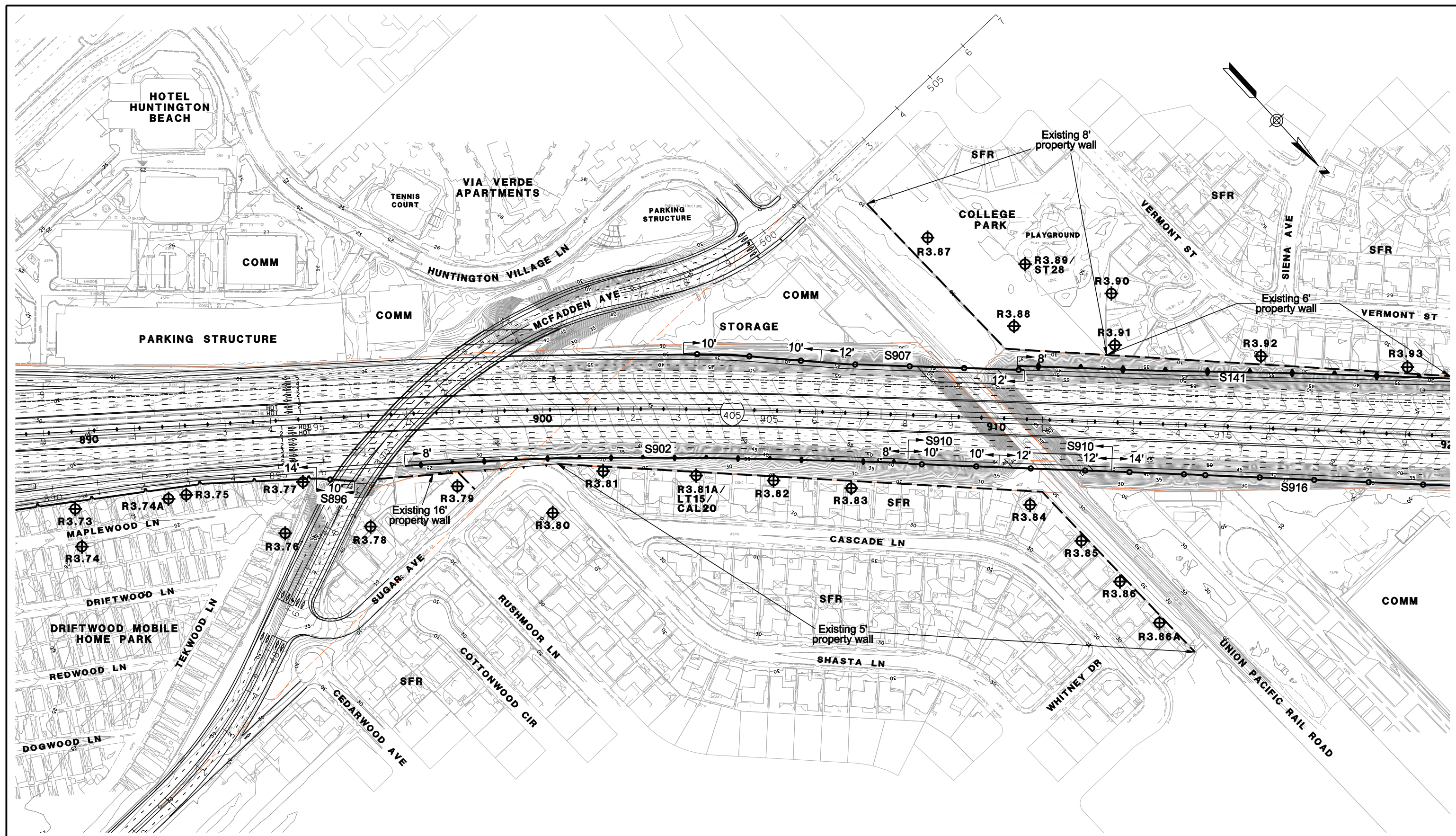
0 ft 100ft 200ft 300ft

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 NADR RECOMMENDED BARRIER
 HEIGHTS & LOCATIONS ALT3**

FEBRUARY 25, 2011

FIGURE 13



LEGEND

- ⊕RXX - RECEIVER SITE
- ⊕LT - LONGTERM MEASUREMENT
- ⊕ST - SHORTTERM MEASUREMENT
- ⊕CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- ▲— EXISTING SOUNDWALL
- ◆— REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



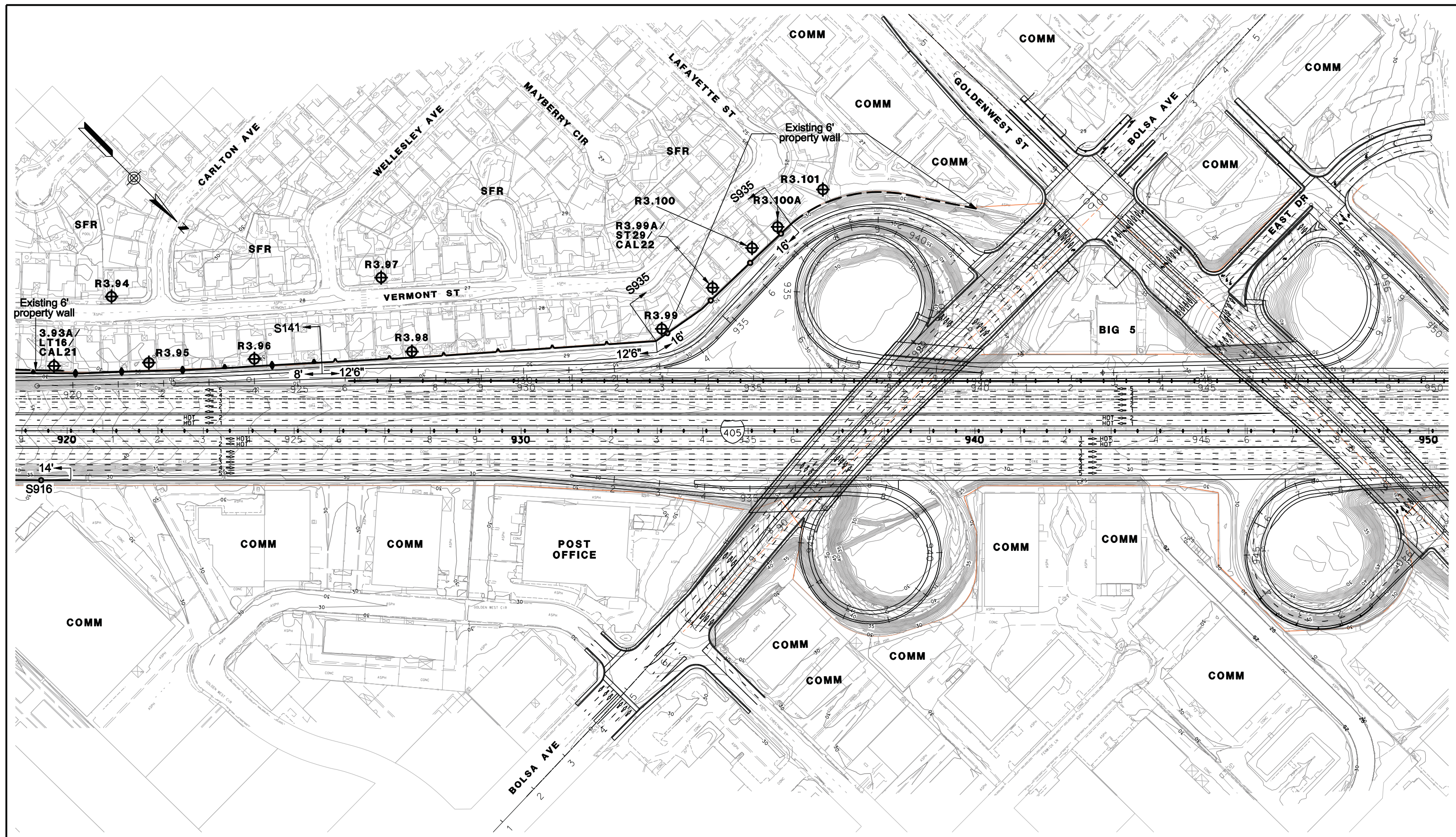
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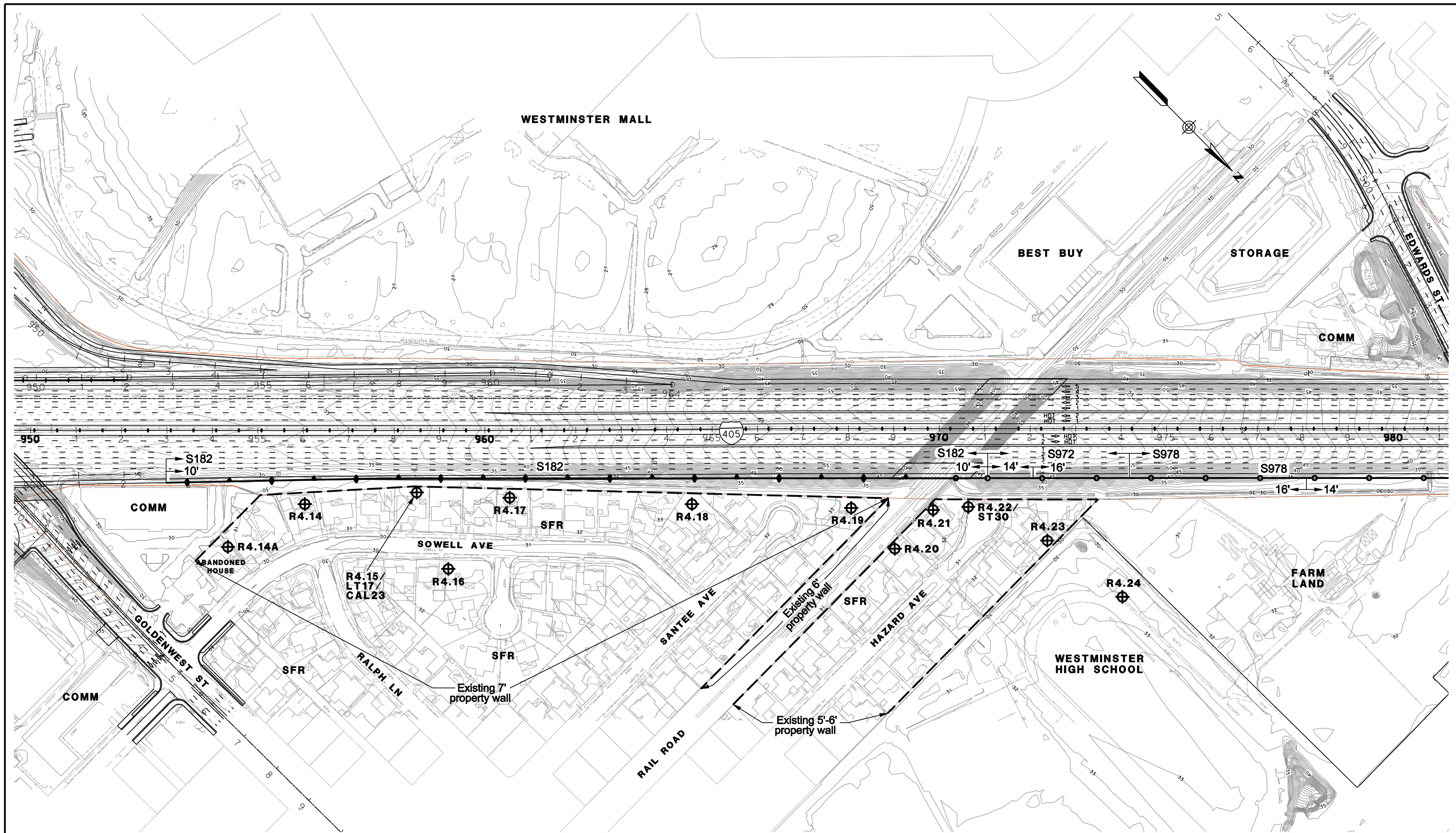
**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

FEBRUARY 25, 2011

FIGURE 14



LEGEND ⊕ RXX - RECEIVER SITE ⊕ LT - LONGTERM MEASUREMENT ⊕ ST - SHORTTERM MEASUREMENT ⊕ CAL - CALIBRATION SITE	--- EXISTING WALL ○---○ SOUNDWALL --- EXISTING SOUNDWALL ◆---◆ REPLACEMENT IN KIND SOUNDWALL	SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE	1in : 200ft 0 ft 100ft 200ft 300ft	PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100	I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT3 FEBRUARY 25, 2011 FIGURE 15
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LEGEND

- ⊕RXX - RECEIVER SITE
- ⊕LT - LONGTERM MEASUREMENT
- ⊕ST - SHORTTERM MEASUREMENT
- ⊕CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



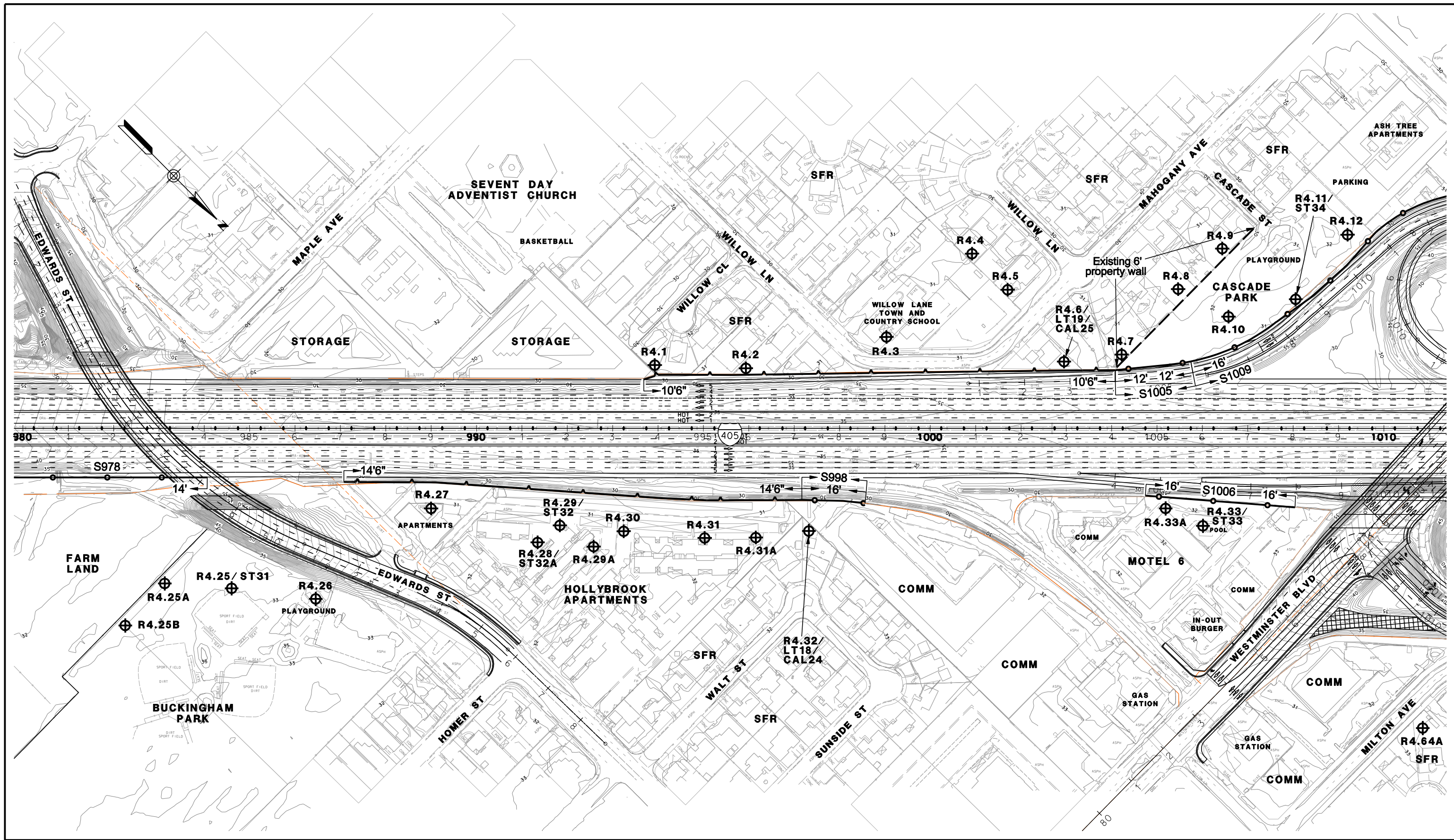
PARSONS

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PASADENA, CA 91124
(626) 440-6100

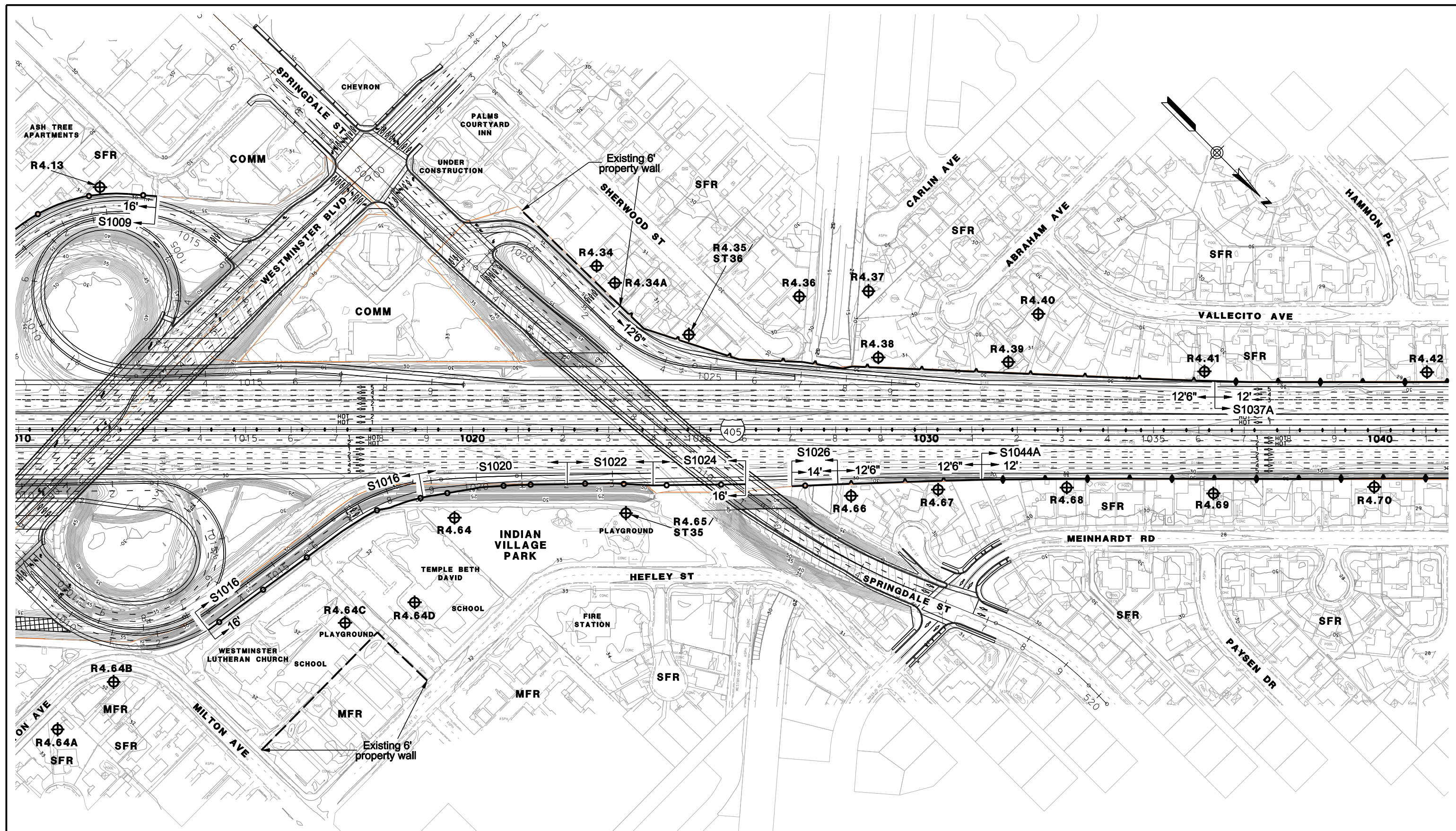
**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

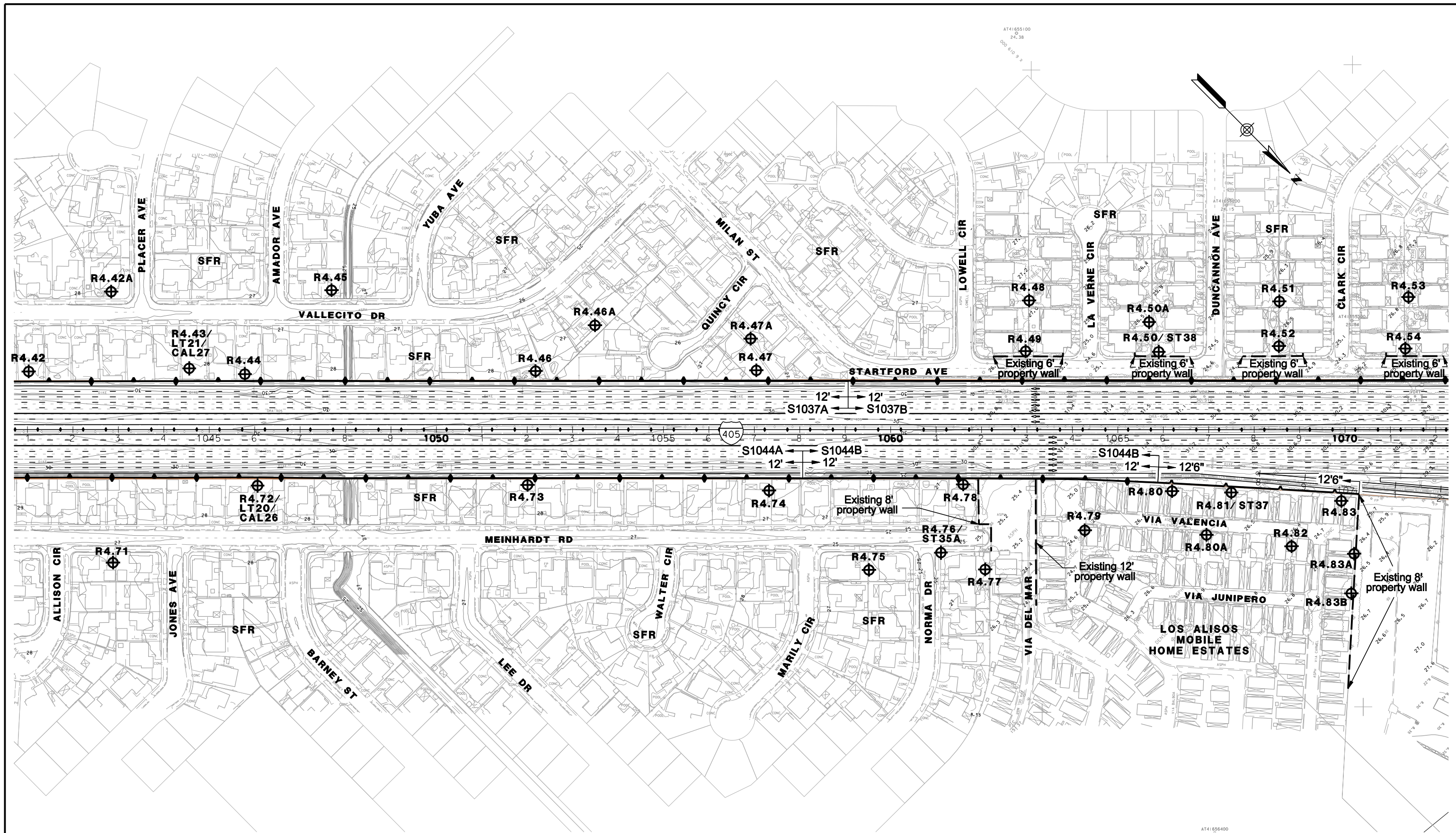
FEBRUARY 25, 2011

FIGURE 16



LEGEND ⊕ RXX - RECEIVER SITE ⊕ LT - LONGTERM MEASUREMENT ⊕ ST - SHORTTERM MEASUREMENT ⊕ CAL - CALIBRATION SITE	--- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL	SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL	1in : 200ft 0 ft 100ft 200ft 300ft	PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100	I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT3 AUGUST 26, 2011 FIGURE 17
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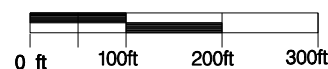
LEGEND

- ⊕ **RXX** - RECEIVER SITE
- ⊕ **LT** - LONGTERM MEASUREMENT
- ⊕ **ST** - SHORTTERM MEASUREMENT
- ⊕ **CAL** - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- ▲— EXISTING SOUNDWALL
- ◆— REPLACEMENT IN KIND SOUNDWALL

- SFR** - SINGLE FAMILY RESIDENCE
- MFR** - MULTI-FAMILY RESIDENCE
- COMM** - COMMERCIAL

1in : 200ft



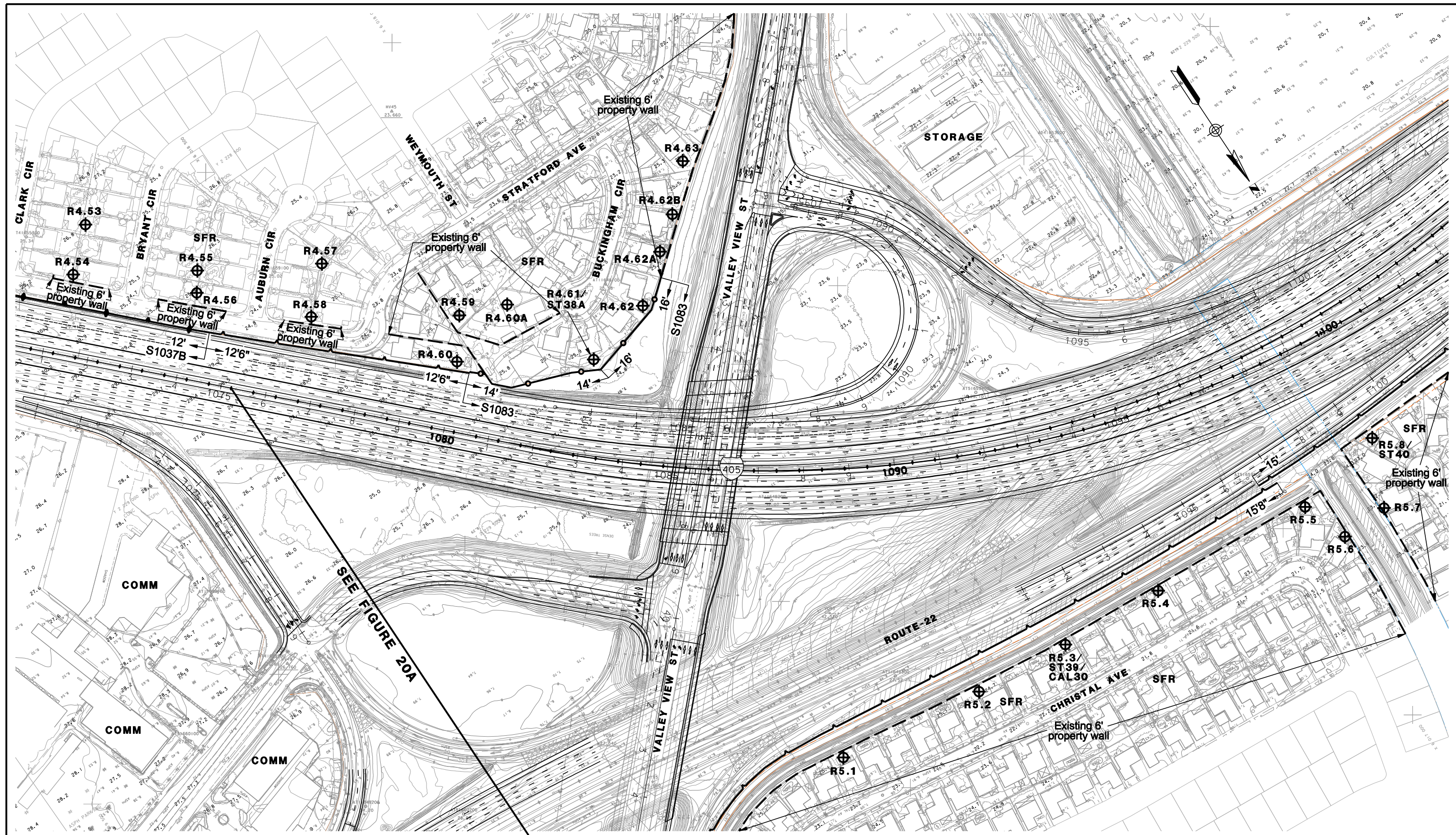
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

AUGUST 26, 2011

FIGURE 19



LEGEND

⊕ **RXX** - RECEIVER SITE

⊕ **LT** - LONGTERM MEASUREMENT

⊕ **ST** - SHORTTERM MEASUREMENT

⊕ **CAL** - CALIBRATION SITE

--- EXISTING WALL

--- SOUNDWALL

--- EXISTING SOUNDWALL

--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE

MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

1 in : 200 ft

0 ft 100ft 200ft 300ft

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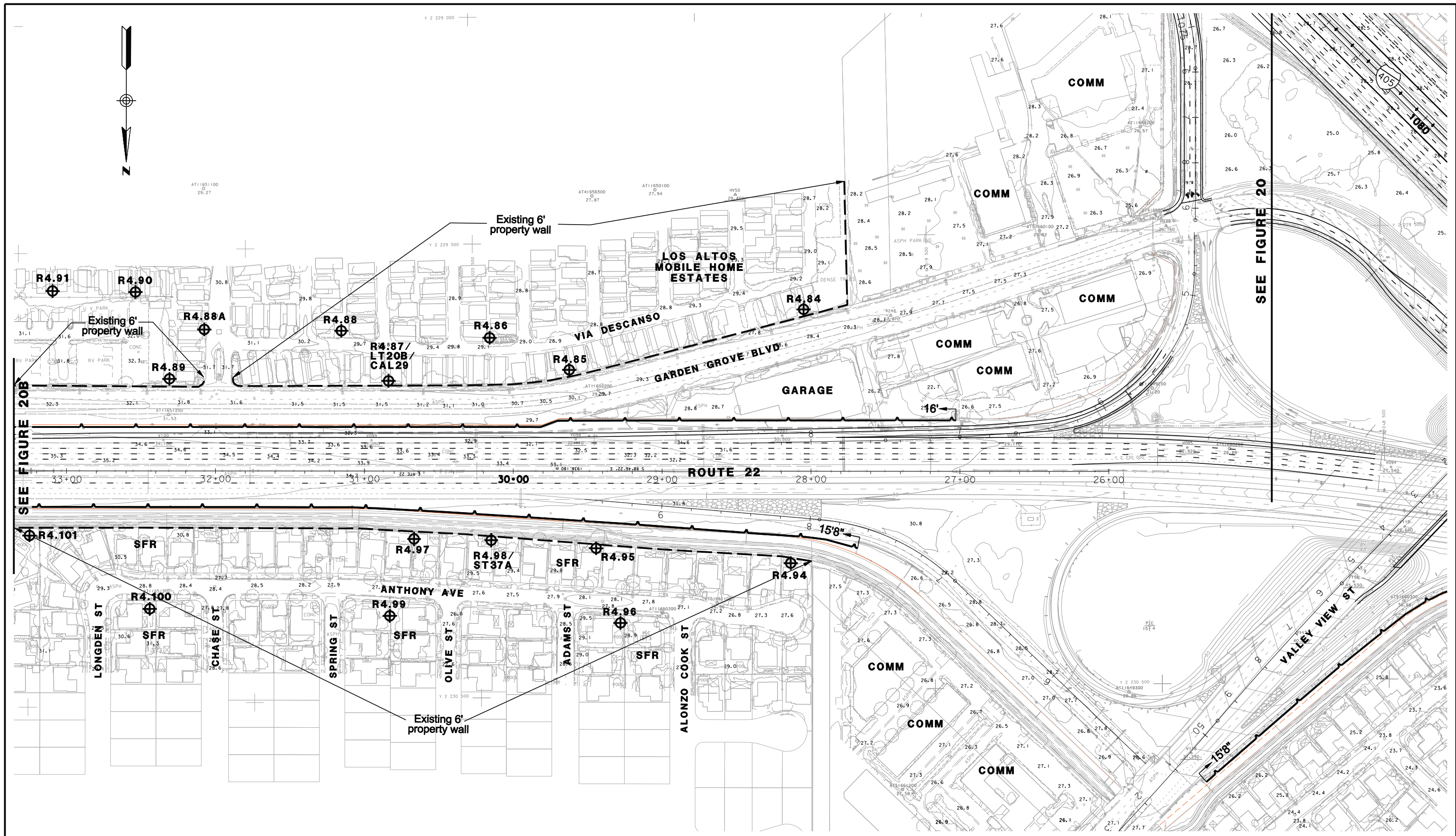
I-405 WIDENING PA/ED PROJECT

NADR RECOMMENDED BARRIER

HEIGHTS & LOCATIONS ALT3

AUGUST 26, 2011

FIGURE 20



LEGEND

⊕ **RXX** - RECEIVER SITE

⊕ **LT** - LONGTERM MEASUREMENT

⊕ **ST** - SHORTTERM MEASUREMENT

⊕ **CAL** - CALIBRATION SITE

--- EXISTING WALL

--- SOUNDWALL

--- EXISTING SOUNDWALL

--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE

MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

b - BENEFITED RESIDENCE

1in : 200ft

0 ft 100ft 200ft 300ft

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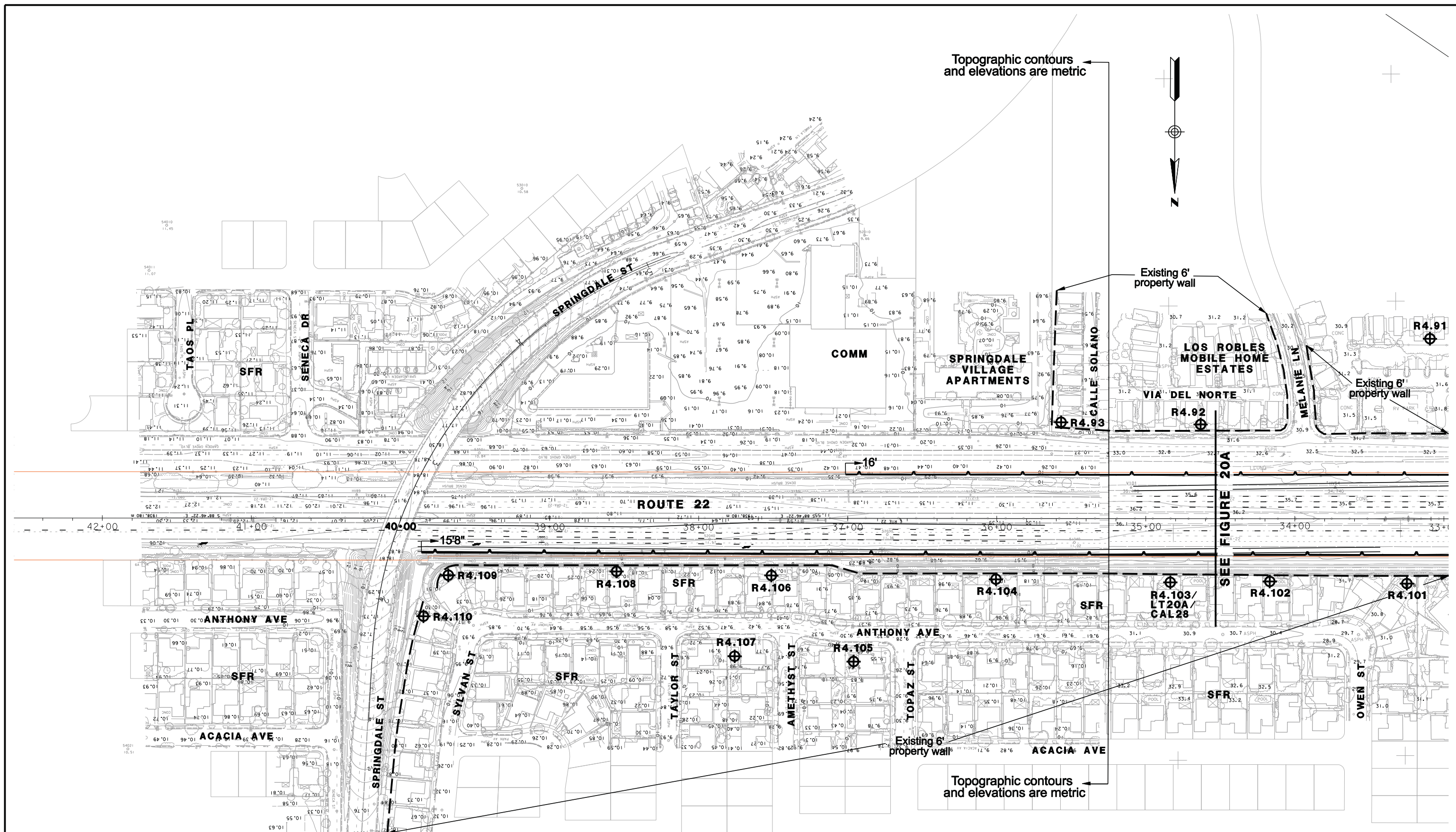
I-405 WIDENING PA/ED PROJECT

NADR RECOMMENDED BARRIER

HEIGHTS & LOCATIONS ALT3

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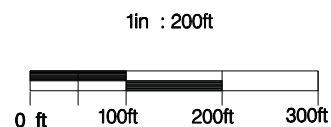
FIGURE 20A



- LEGEND**
- ⊕RXX - RECEIVER SITE
 - ⊕LT - LONGTERM MEASUREMENT
 - ⊕ST - SHORTTERM MEASUREMENT
 - ⊕CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDBALL
- EXISTING SOUNDBALL
- REPLACEMENT IN KIND SOUNDBALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

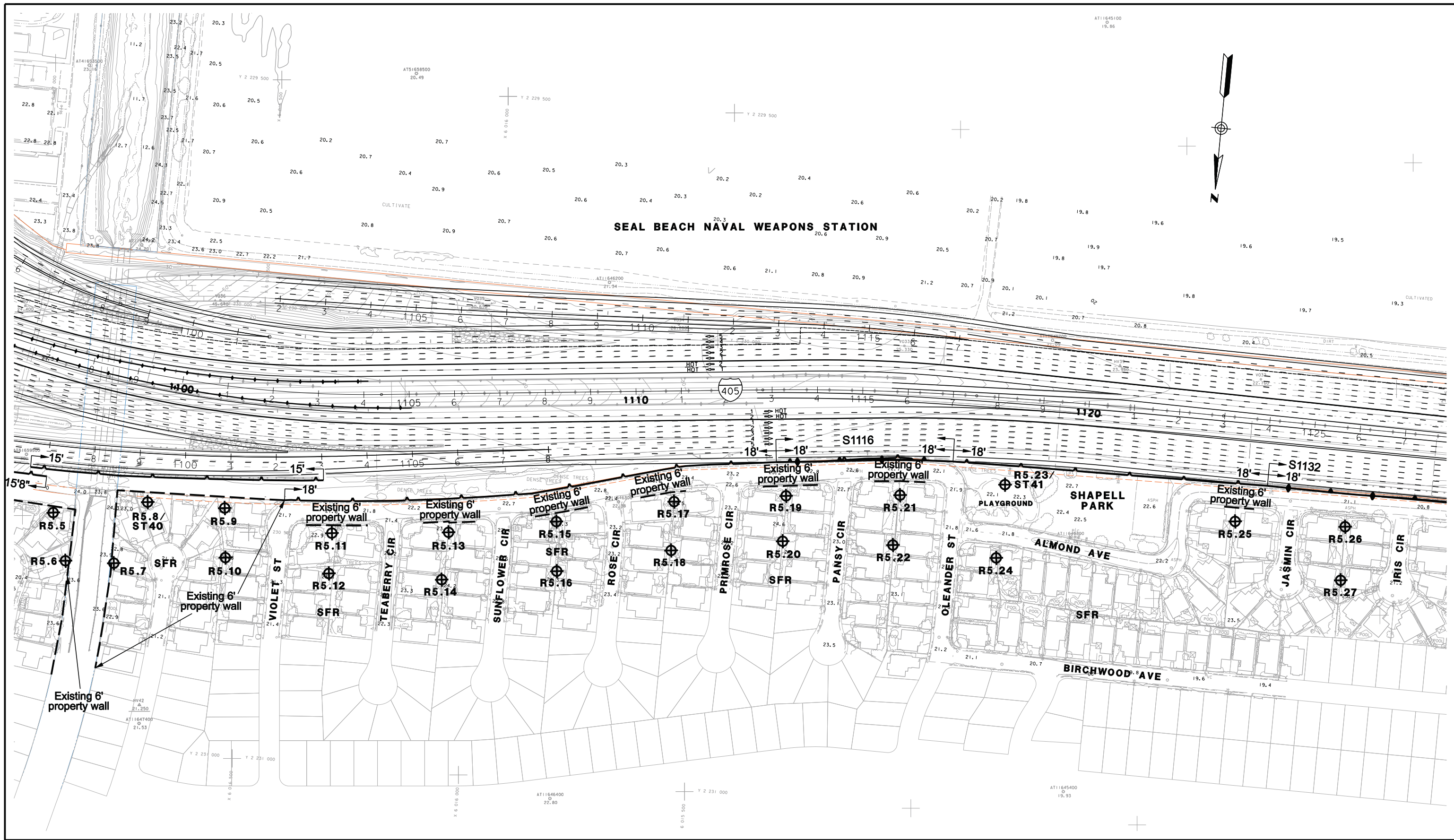


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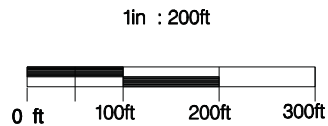
FIGURE 20B



- LEGEND**
- ⊕ **RXX** - RECEIVER SITE
 - ⊕ **LT** - LONGTERM MEASUREMENT
 - ⊕ **ST** - SHORTTERM MEASUREMENT
 - ⊕ **CAL** - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR** - SINGLE FAMILY RESIDENCE
- MFR** - MULTI-FAMILY RESIDENCE
- COMM** - COMMERCIAL
- b** - BENEFITED RESIDENCE

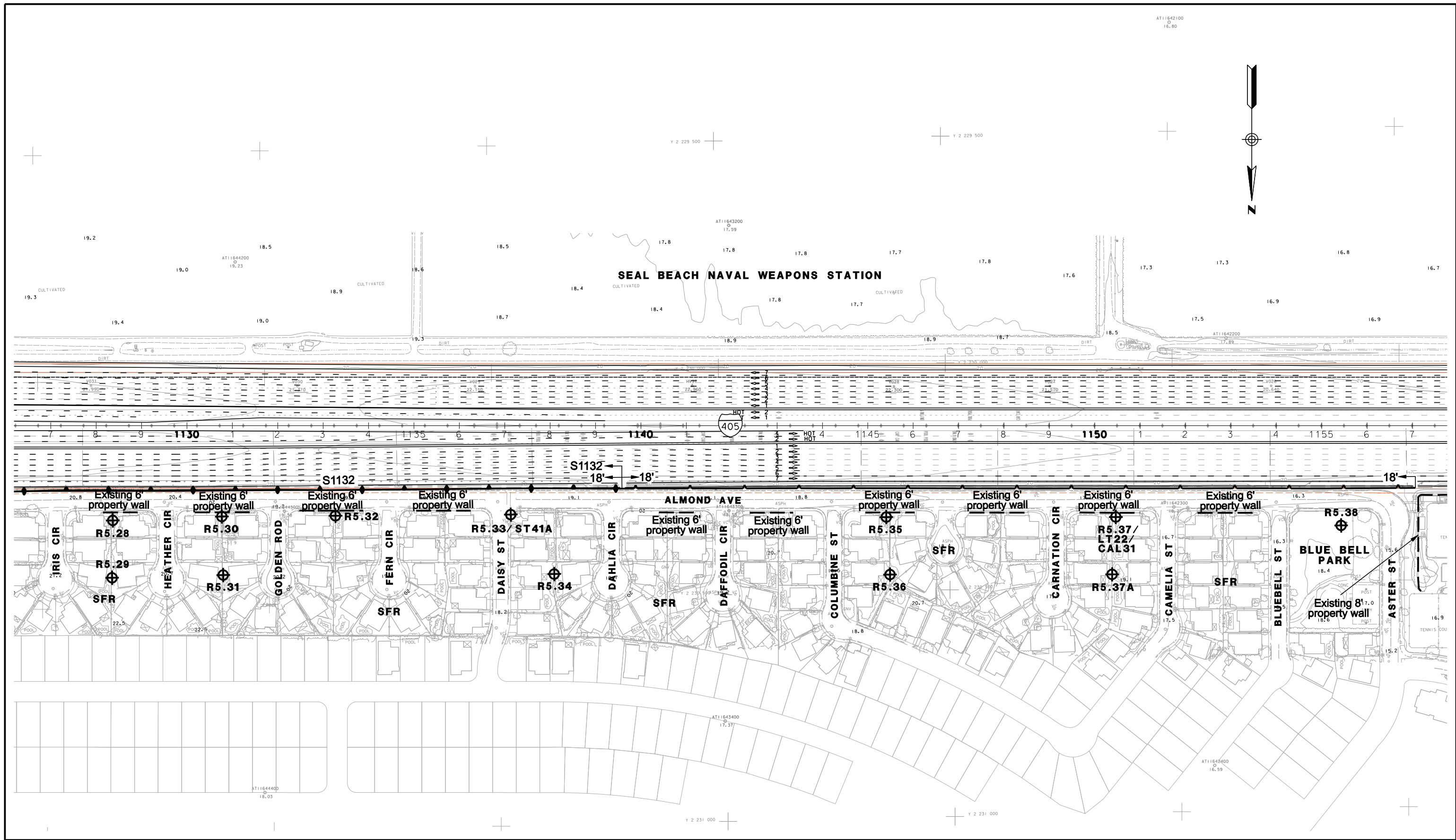


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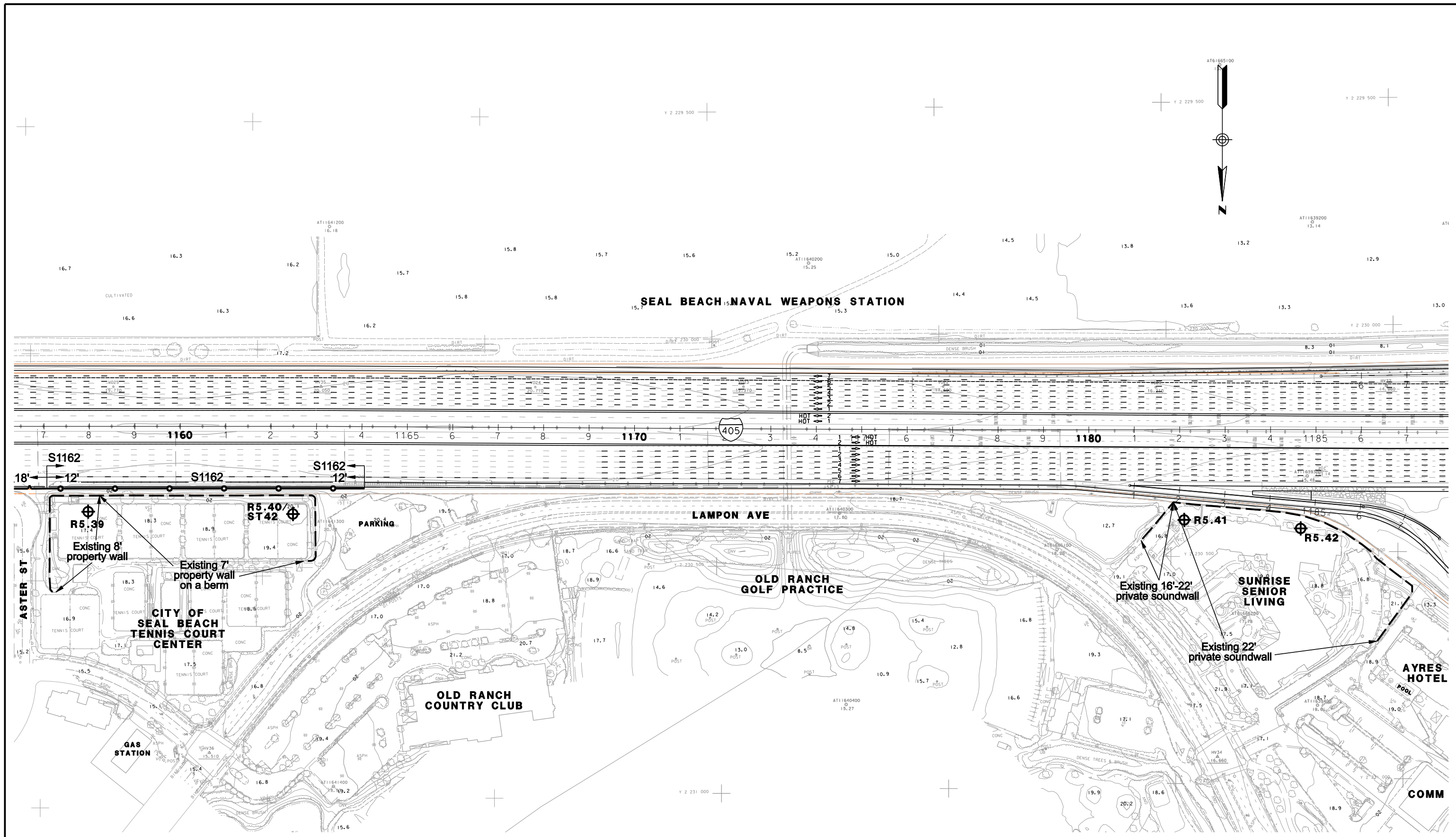
**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

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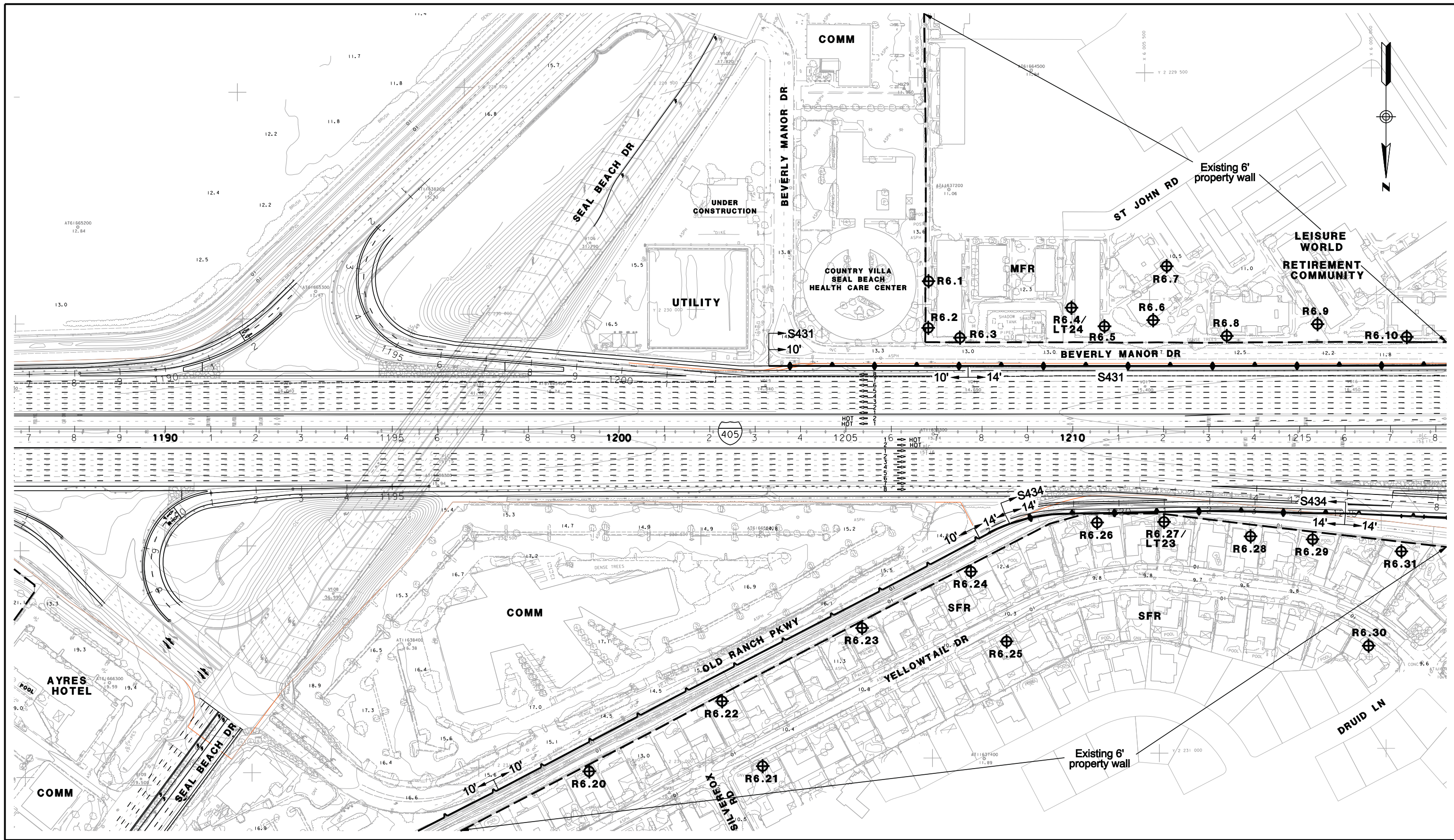
FIGURE 21



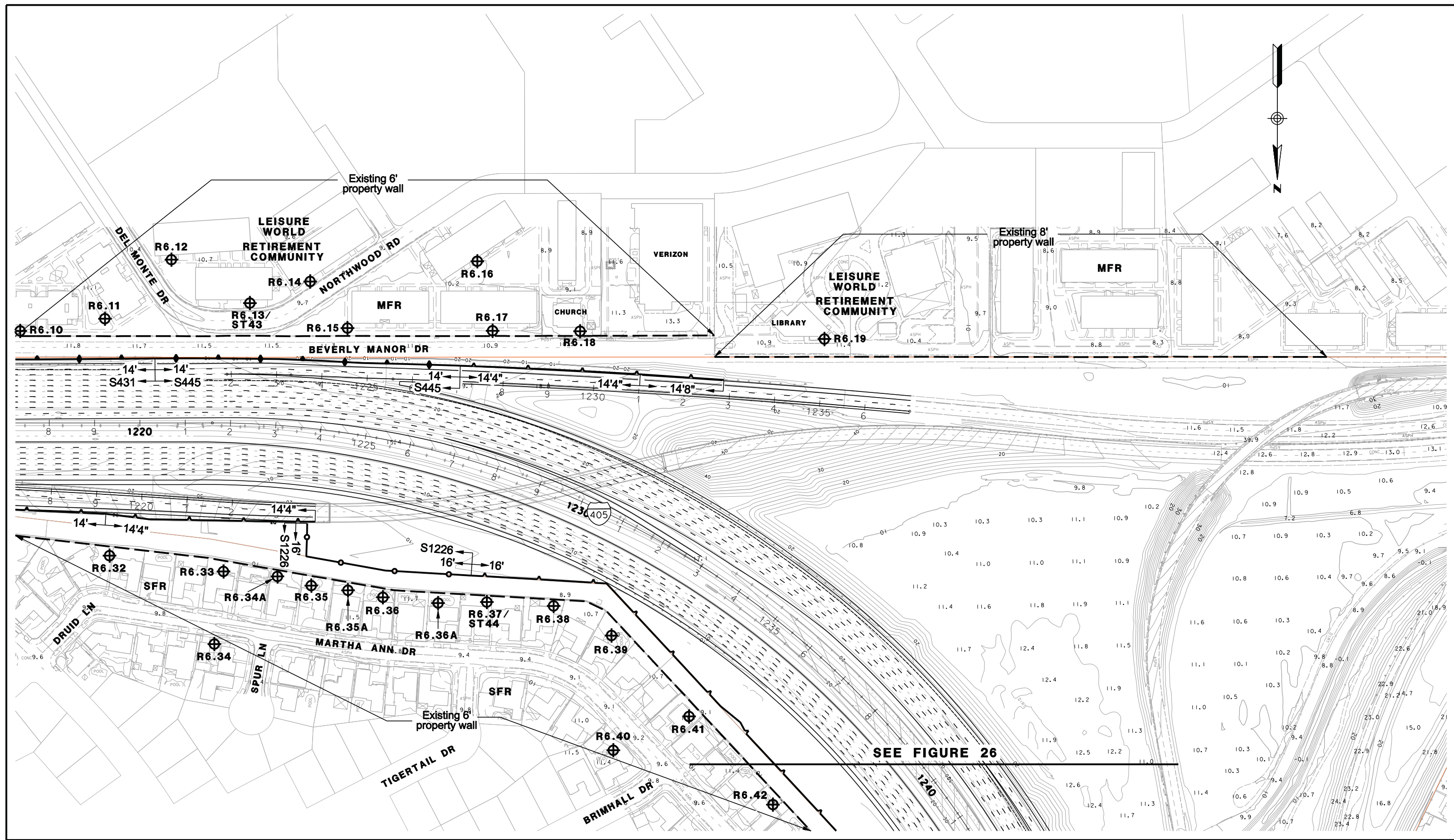
LEGEND ⊕ RXX - RECEIVER SITE ⊕ LT - LONGTERM MEASUREMENT ⊕ ST - SHORTTERM MEASUREMENT ⊕ CAL - CALIBRATION SITE	 --- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL	SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE	1in : 200ft 	PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100	I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT3 FEBRUARY 25, 2011 FIGURE 22
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LEGEND ⊕RX - RECEIVER SITE ⊕LT - LONGTERM MEASUREMENT ⊕ST - SHORTTERM MEASUREMENT ⊕CAL - CALIBRATION SITE	 --- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL	SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL	1 in : 200 ft 0 ft 100ft 200ft 300ft	PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100	I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT3	
					APRIL 25, 2012	FIGURE 23



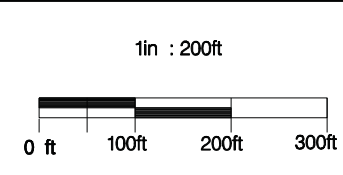
LEGEND ⊕RXX - RECEIVER SITE ⊕LT - LONGTERM MEASUREMENT ⊕ST - SHORTTERM MEASUREMENT ⊕CAL - CALIBRATION SITE		--- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL		SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE		1in : 200ft 0 ft 100ft 200ft 300ft		PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100		I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT3 FEBRUARY 25, 2011		FIGURE 24	
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- LEGEND**
- ⊕RXX - RECEIVER SITE
 - ⊕LT - LONGTERM MEASUREMENT
 - ⊕ST - SHORTTERM MEASUREMENT
 - ⊕CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- ▲— EXISTING SOUNDWALL
- ◆— REPLACEMENT IN KIND SOUNDWALL

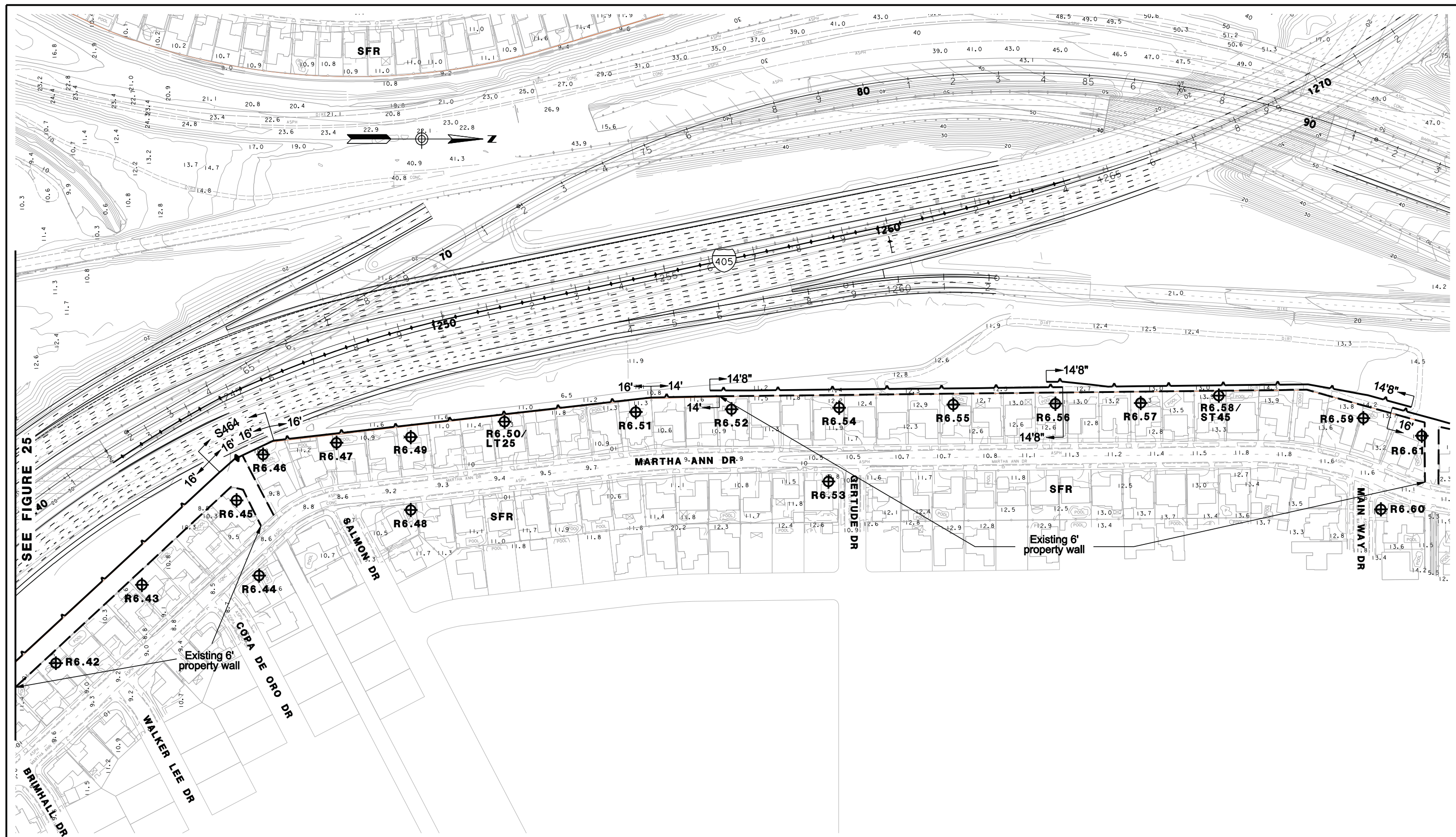
- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE



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 NADR RECOMMENDED BARRIER
 HEIGHTS & LOCATIONS ALT3**

FEBRUARY 25, 2011 **FIGURE 25**



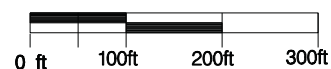
LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1 in : 200 ft



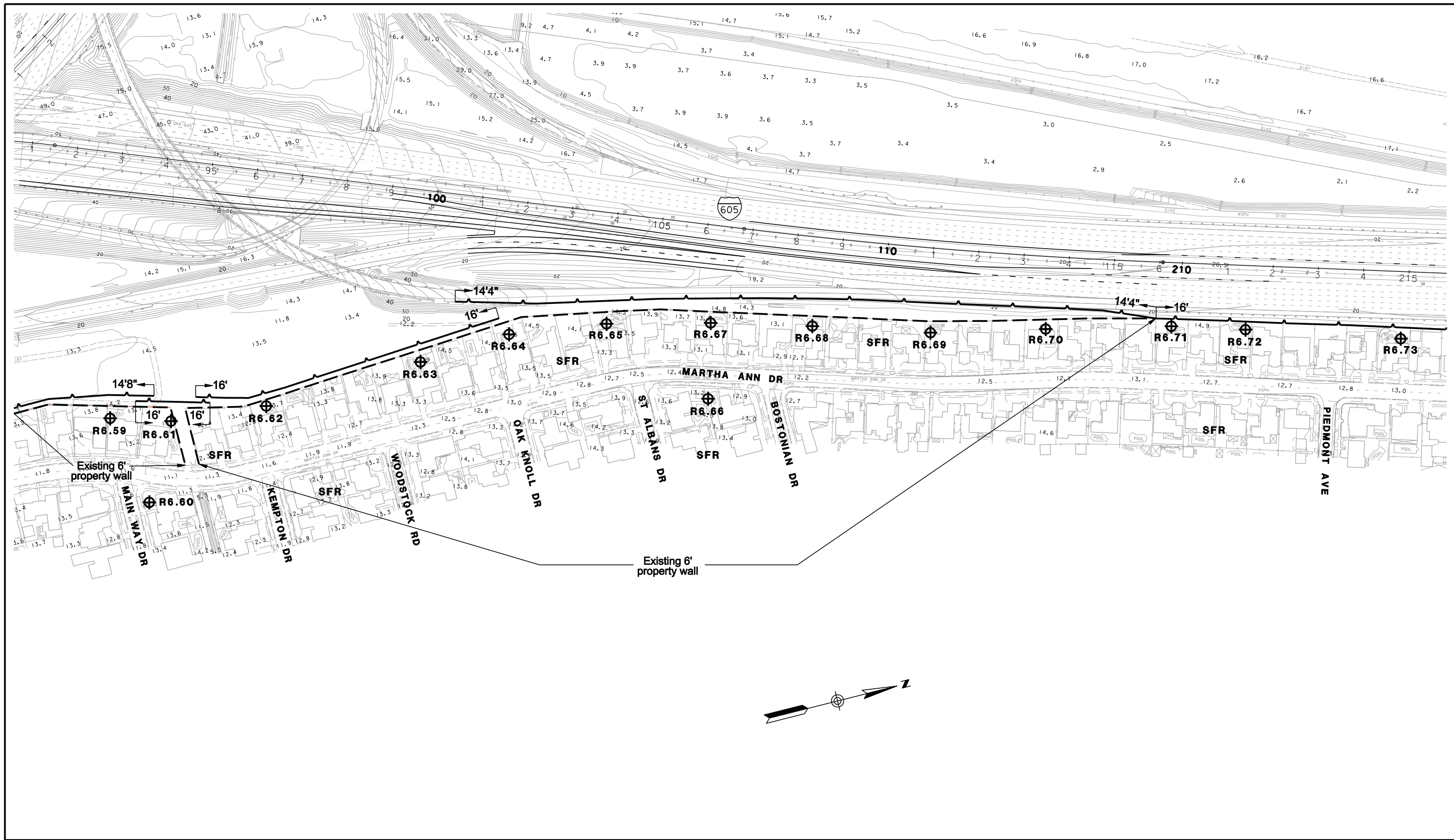
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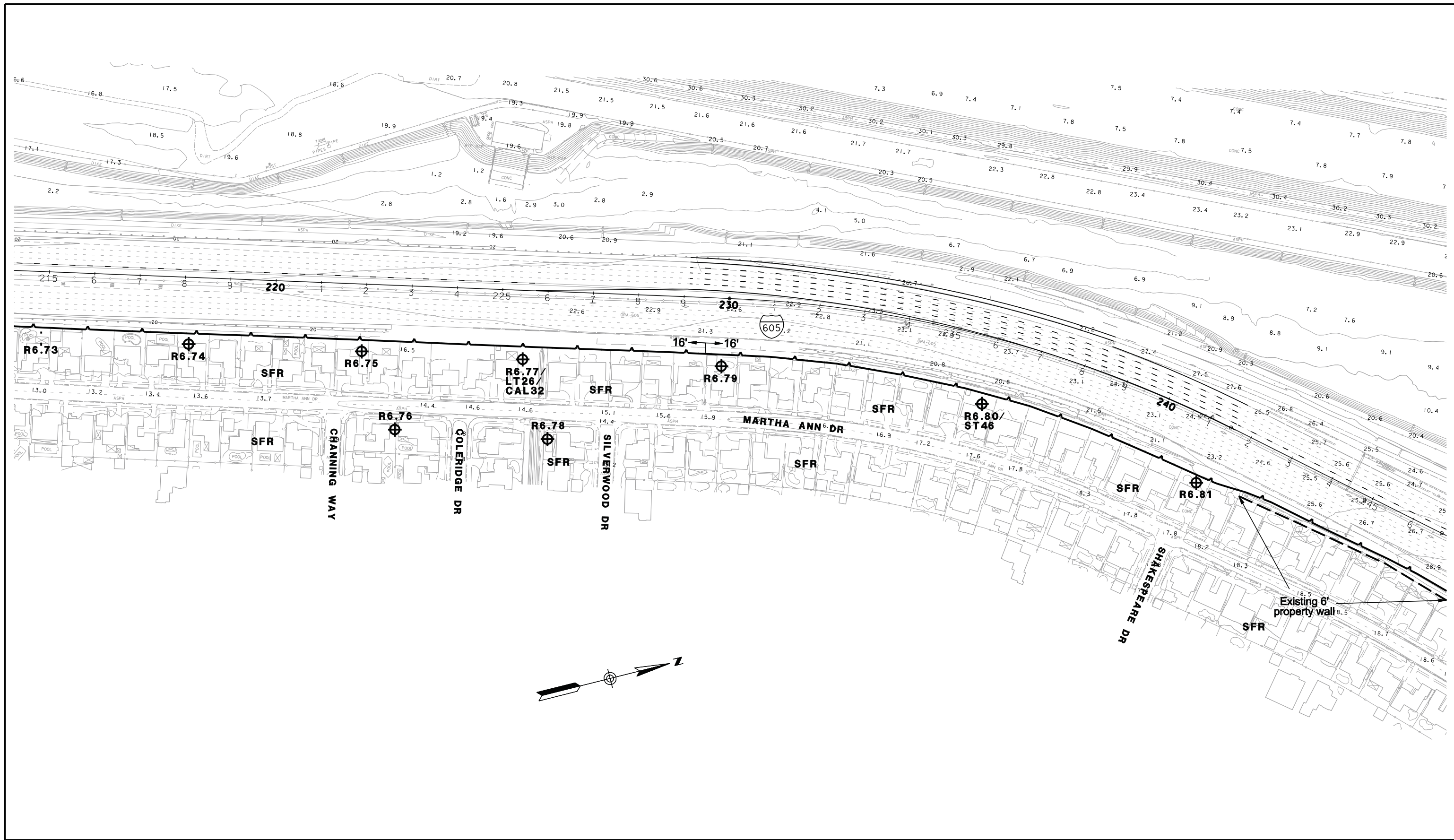
**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT3**

FEBRUARY 25, 2011

FIGURE 26



LEGEND ⊕ RXX - RECEIVER SITE ⊕ LT - LONGTERM MEASUREMENT ⊕ ST - SHORTTERM MEASUREMENT ⊕ CAL - CALIBRATION SITE		--- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL		SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE		1in : 200ft 0 ft 100ft 200ft 300ft		PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100		I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT3 FEBRUARY 25, 2011		FIGURE 27	
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LEGEND ⊕RXX - RECEIVER SITE ⊕LT - LONGTERM MEASUREMENT ⊕ST - SHORTTERM MEASUREMENT ⊕CAL - CALIBRATION SITE		--- EXISTING WALL ○---○ SOUNDWALL ▲--- EXISTING SOUNDWALL ◆--- REPLACEMENT IN KIND SOUNDWALL		SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE		1in : 200ft 0 ft 100ft 200ft 300ft		PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100		I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT3 FEBRUARY 25, 2011		FIGURE 28	
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